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Appalachia

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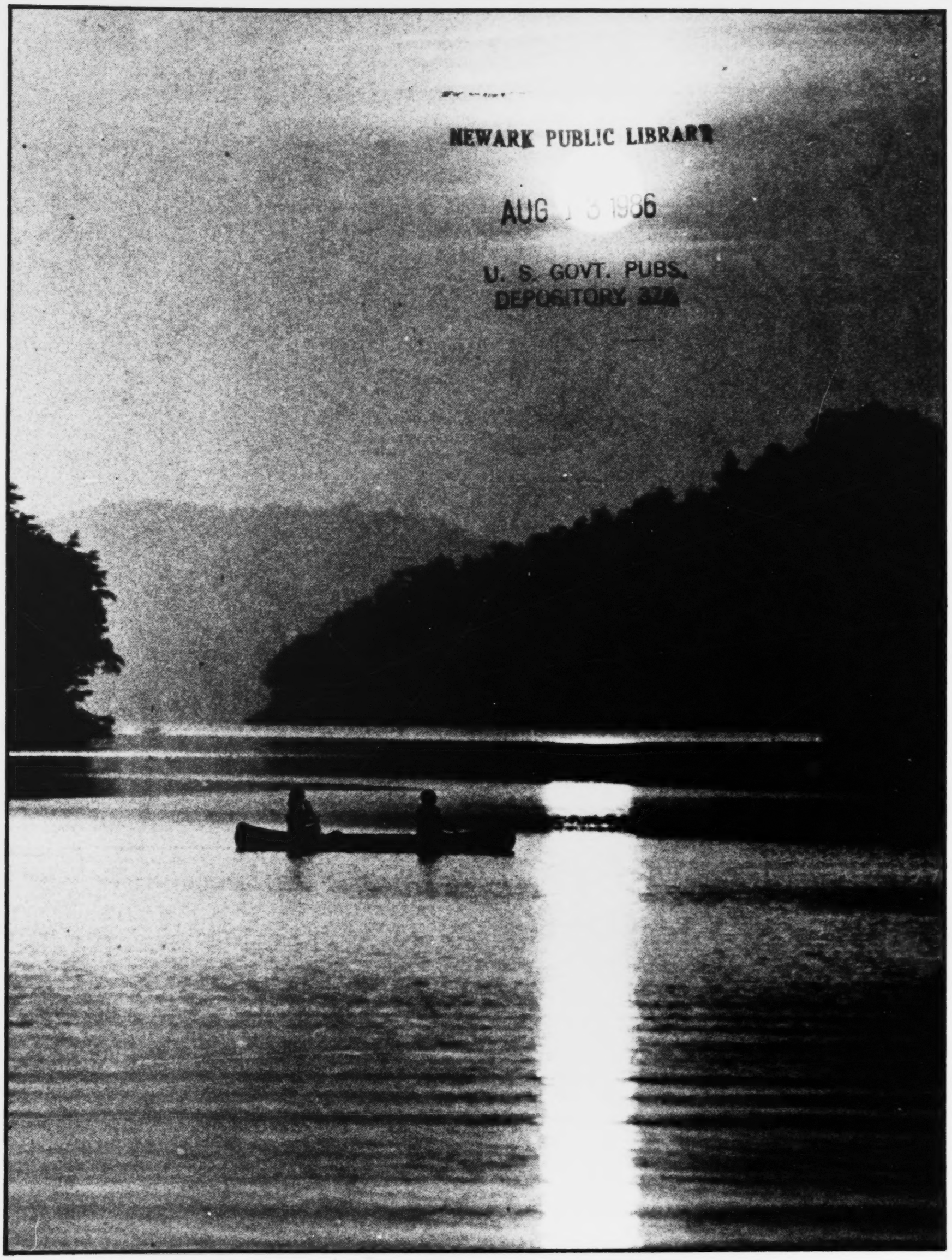

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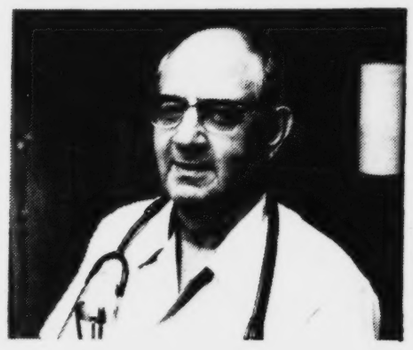

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Appalachia

A JOURNAL DEVOTED TO THE SPECIAL PROBLEMS OF REGIONAL DEVELOPMENT

APPALACHIAN REGIONAL COMMISSION

FRANCIS E. MORAVITZ
Executive Director

ELISE F. KENDRICK
Editor

DIANE BOWKER
Assistant Editor

RICHARD SWARTZ
Graphics

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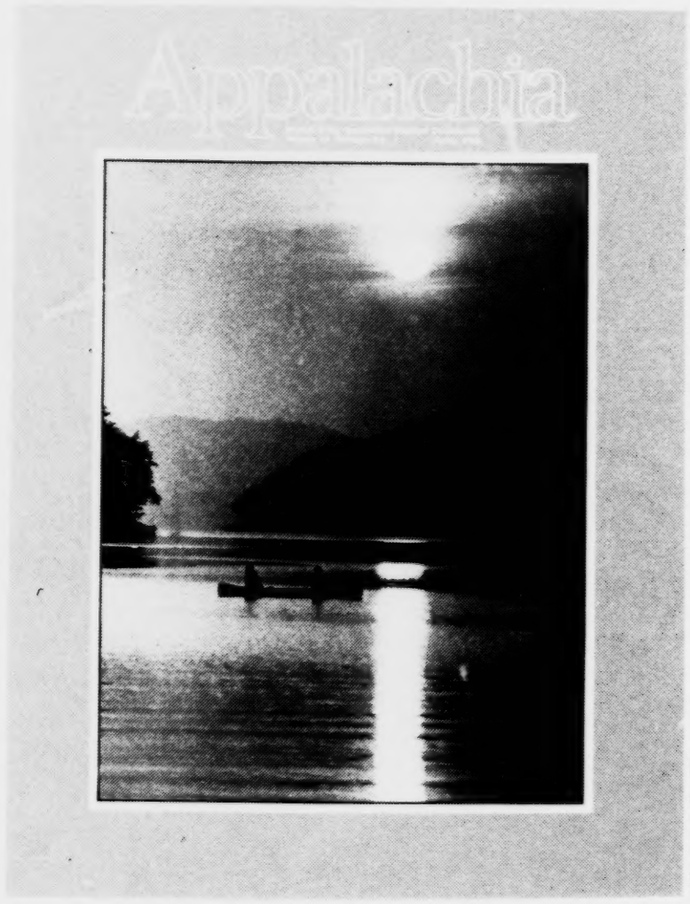
This Month's Cover



Kenneth Murray

Appalachian mountains and lakes draw many tourists to the Region throughout the year and also offer citizens of the Region plenty of opportunities to enjoy life out of doors. Pictured: South Holston Lake in eastern Tennessee.

Kenneth Murray

Not a Drop to Drink?

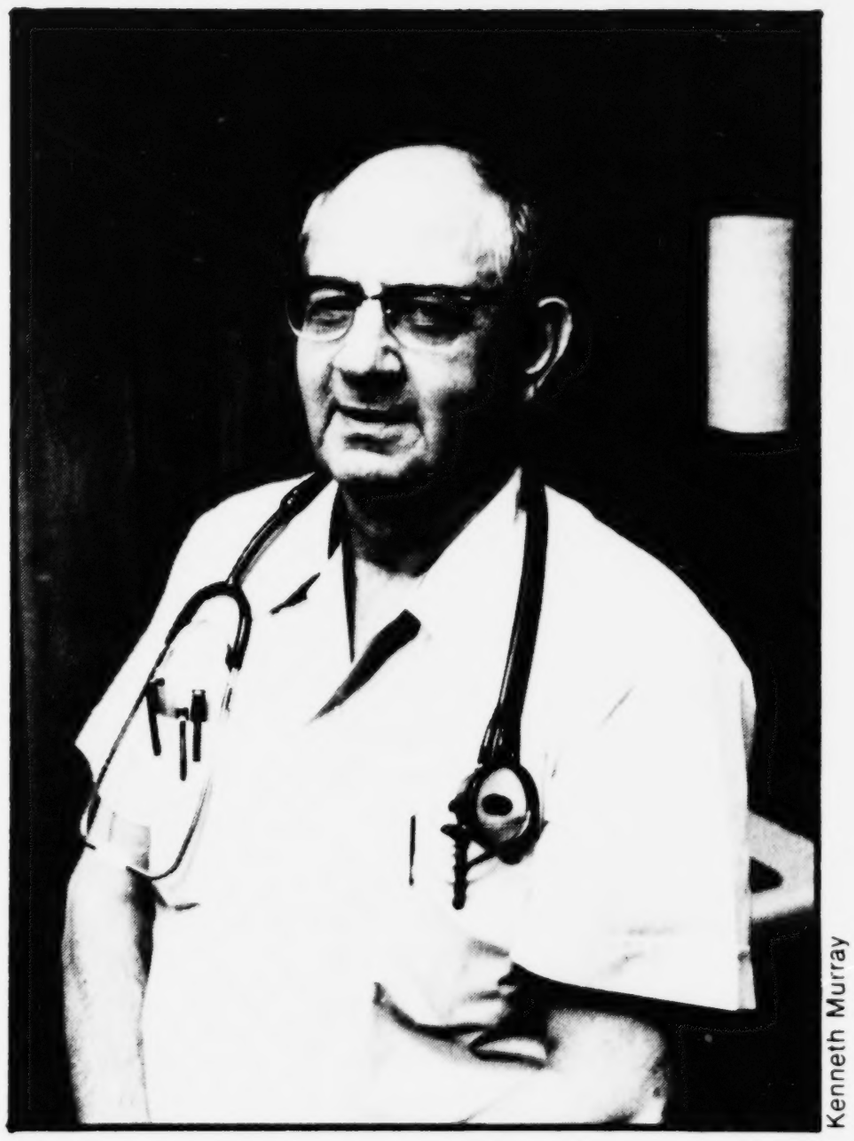
By Robert Sokolowski

In March of 1983, Dr. Joe T. Pettey, a sixty-year-old general practitioner who has spent his entire professional career in Russell Springs, Kentucky, wrote a letter to Mayor Fred S. Tarter in which he expressed a concern that the virus epidemic then spreading in town among school-age children and adults might have come from drinking the local water. This concern was one of the major events that triggered the recently completed renovation of the city's water lines, a project partially funded by the Appalachian Regional Commission (ARC) under its distressed county program.

Robert Sokolowski, ARC's director of district programs, was formerly coordinator of the distressed counties program.

Russell Springs is located in Russell County, approximately 85 miles southwest of Lexington. The visitor's immediate impression as he enters Russell County is one of rolling terrain, good pasture land and relatively good conditions for residential or commercial development. And indeed Russell County once (back in the 1940s) had a strong agricultural base along with a population of over 14,000. During the past 45 years, however, the county shifted from an agricultural to a manufacturing base. Along with that shift came the outmigration pattern that was characteristic of so much of Appalachia. By 1970 the population of the county had dropped to a little over 10,000.

Like other counties identified in 1981 under the ARC finish-up program as distressed counties, Russell County



Kenneth Murray

(TOP) Lake Cumberland State Park near Russell Springs, Kentucky. (ABOVE) Dr. Joe T. Pettey, the general practitioner who worried about the contamination of Russell Springs' water.

lacks some of the most basic public facilities as well as having disproportionately high rates of unemployment and poverty, and low per capita income. For three years ARC has set aside funds which the Appalachian states can use each year to provide special assistance to these approximately 60 most underdeveloped and distressed counties in the Region. This program has now devoted $31.6 million to 152 projects, most of them meeting local needs for safe drinking water and affordable waste disposal (see tables on pages 6 and 7).

Russell Springs, the largest city in Russell County, points with pride to two sources of fame: its shopping trade and a favorite local son. The city is centrally located in the county and readily accessible via good roads, north-south Route 127 and east-west Route 80, so that citizens en route to any county destination find it a convenient stopping point. A sign on the outskirts of the city identifies the city's second source of pride: Russell Springs is the home of Steve Wariner, whose hit song "You Can Dream of Me" recently hit the top of the country/western charts.

Over 2,000 people live in Russell Springs today. As is true of the surrounding county, not much growth has occurred in the city over the past years. The tax base is low, and it is difficult for the city to come up with funds to provide the additional facilities that would attract industry. Without the help of ARC, the city could probably not have afforded to do anything about its dilapidated water system.

The Need

In 1983, the water system was a patchwork system that no longer served the town well. When Dr. Pettey wrote his letter, the existing facilities consisted of a branching system largely composed of old four-inch (or smaller) cast-iron lines installed in the 1930s. The interiors of these narrow pipes, moreover, were heavily encrusted with mineral deposits, especially where wider pipes fed into them and created bottlenecks that pro-

Mayor Fred S. Tarter of Russell Springs (left) and John Phelps,executive director of the Lake Cumberland Area Development District, discuss the water pressure problem in the city's hydrants.

duced standing water; this encrustation further restricted the flow of water. Especially during times of high water demand, all of the water from the central plant that the lines could allow to pass was so quickly sucked through that contaminated water was pulled into the system through any small leaks in the pipes. This antiquated system was inefficient and ineffective. Compared to many other Appalachian towns, Russell Springs' situation was ironic. In most other rural distressed counties, the source of water is the major concern. In Russell Springs, the source was and is abundant and good, but the pipelines were unable to get the water to customers.

John Phelps, executive director of the local development district, the Lake Cumberland Area Development District, and his staff prepared a video that vividly demonstrates the problem with pressure in the system by showing the meager flow produced when fire hydrants were opened in the early evening or other peak demand periods. An engineering firm was hired to test the water flow pressure. Tests were conducted randomly on 15 fire hydrants. Of the 15, 14 failed to meet the state requirements of 400 gallons per minute. Mayor Tarter said of the period during which the tests were performed, "I received 22 phone calls from local residents complaining about no water and a call from the elementary school principal concerned about the discolored and foul-smelling water."

Harold Snodgrass, the engineer on the project, explained the potential dangers to health with the then-existing system: "When the system is drained of its pressure—that is, when customers call for all the water it can produce—a situation is created that engineers call 'negative pressure.' Air is forced into the lines, bringing with it any contaminants that may exist in the area." He was quick to point out that in the Russell Springs area there were many old wells contaminated by some of the industries (like the feed mill and the petroleum refinery). As he predicted, when the engineers tested the system, certain lines went completely dry—especially in the area of the schools. The water took on a brownish color and began to smell. And the very next day 250 students reported sick, which necessitated closing the elementary and secondary schools. This led Dr. Pettey to write his letter to the mayor.

Because Russell Springs has found it very difficult over the last decades to retain enough jobs for its residents, one effect of the deterioration of the water system was particularly traumatic for the city. One of the major steady employers in the area was the Cudahy Cheese Factory, which employed 40 local residents. About three years ago a fire broke out in the factory. The alarm was sounded. Within minutes the firefighting team and equipment were at the scene. They fought hard to control and extinguish the blaze but ultimately had to give up and stand by while the concrete block building was totally gutted. The reason? There wasn't enough pressure in the water system to supply the water needed to put out the fire. Forty jobs were lost. To this day, the plant has not reopened.

All photos in this story by Kenneth Murray

Since the renovation of the water system, Russell Springs elementary school children have plenty of safe water to drink.

With the old wcter system, Carl Benson (above right) found that the discoloration of the water and the uncertainty of supply created major problems for his hotel and restaurant.

Just on the outskirts of the city, a short way down Route 127, there is a ten-unit hotel and restaurant. This establishment is owned and operated by a husband and wife team, Mr. and Mrs. Carl Benson. Carl Benson says, "Conditions used to be trying, to say the least. We never knew if anyone could complete their shower, especially if there was any sort of drain on the system, like a fire anywhere nearby, or if a number of individuals decided to use the facilities at the same time."

Mrs. Benson adds, "The most frustrating problem was the rust in the water. This happened all the time, and then the sheets and towels and table linens would get stained while we were washing them. No detergent or amount of washing could get them clean again."

Mayor Tarter, a local businessman in his sixties who has been mayor since 1978, recounts what the deteriorated water system meant to a low-income housing section just on the outskirts of town. Here about 15 homes just west of Route 80, built some years ago, had been joined to the public water system with two-inch lines. These narrow lines were not only inadequate, given the problem with pressure in the entire system, but since they were of cast iron, they were so corroded and encrusted that even if the pressure had been adequate, the flow of water would have been restricted. In desperation, these 15 customers reverted to hauling water or to using wells existing in the area, many of which were in different stages of contamination. As Mayor Tarter put it, "These homes are not in some remote, rural outpost outside of town. They are right in the residential area. Can you imagine what people think of that kind of situation?"

The Renovation

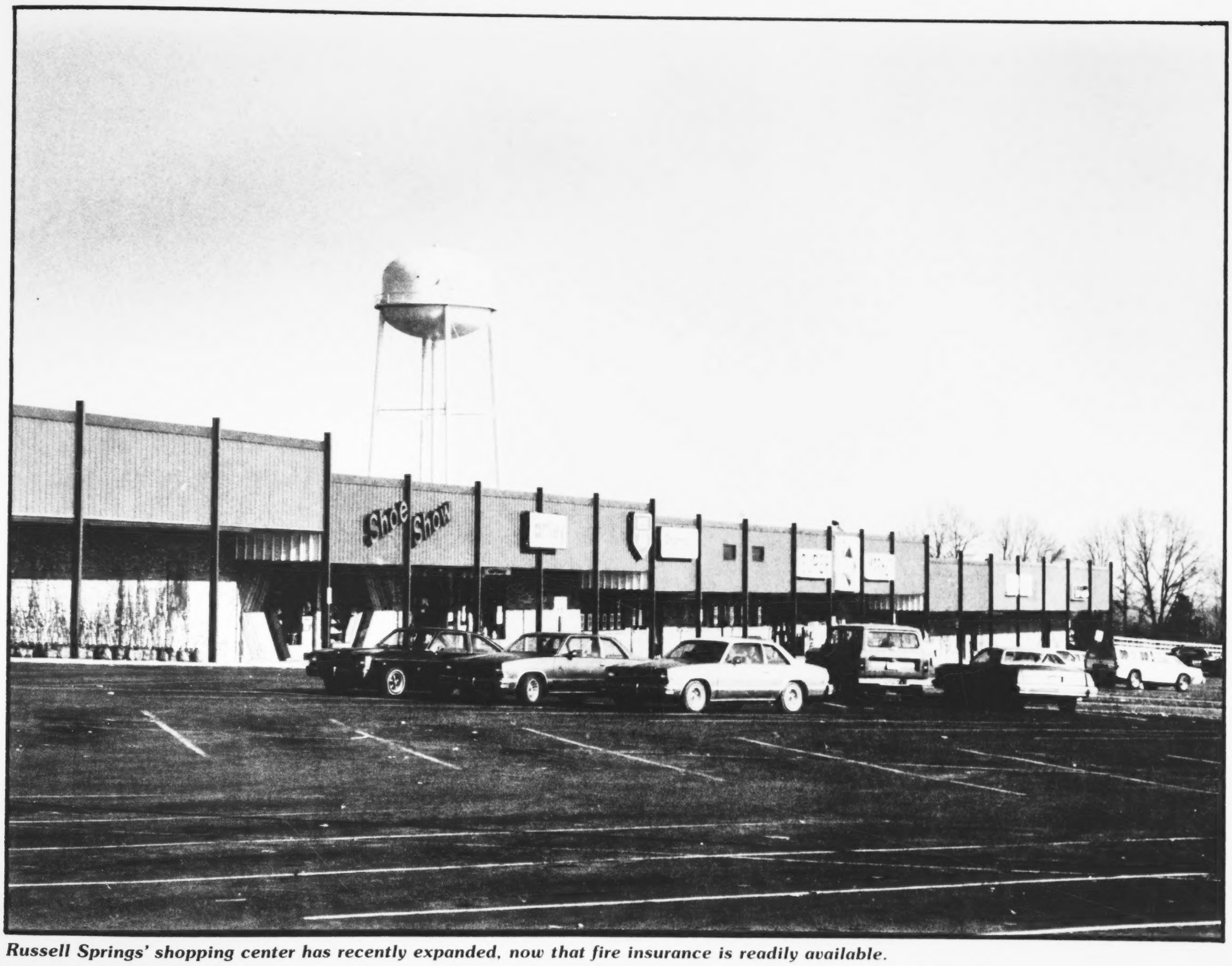
So the need was definitely there. On September 6, 1983, ARC approved a grant of $273,000 in funds under the distressed county program, which would be matched with a Department of Housing and Urban Development Small Cities grant of $378,000, a Farmers' Home Administration loan of $48,000 and local funds amounting to $63,500 to assist Russell Springs in making major improvements in the town's water system. The project called for

- using eight-inch water lines to connect the hospital to the high school
- looping and replacing the cast-iron lines in the vicinity of the elementary school
- replacing the four-inch lines in the southwestern section of town, near the old intersection of routes 127 and 80 (there is now a bypass around the town)
- replacement of two- and four-inch lines along old U.S. 127, or Lakeway Drive.

In summary, the project called for 15,000 linear feet of six-inch line and 4,000 linear feet of eight-inch line.

This project, completed in October 1984, has drastically changed the Russell Springs distribution system. Today water in the system circulates readily; water flows and water pressure are greatly improved. The health hazard is entirely eliminated; contaminated water no longer infiltrates the lines during periods of high water demand. The

The shopping center recently expanded to add six new commercial establishments.



Russell Springs' shopping center has recently expanded, now that fire insurance is readily available.

renovation has made economic growth possible where it was not feasible before.

All of the 742 customers on the Russell Springs water system benefit from these improvements. Of these customers, 560 families, or over three quarters of them, have gross family incomes of less than $17,000.

The problems described above have vanished. The two schools and the 45-bed hospital have an adequate supply of good water at all times. When the next fire occurs, the city will be able to douse it with all the water necessary. Carl Benson no longer has to fend off visitors' complaints about discolored linen or trickles of water instead of showers. The 15 families living the housing section west of Route 80 no longer have to rely on water hauled from wells; they are enjoying good, clean drinking water from the public water system whenever they want it.

But beyond the problems that are now just a memory or a good story to tell, the project has brought some additional benefits that no one could have foretold. First of all, Mayor Tarter points proudly to the fact that the city's insurance rating was reduced from Class 8 to Class 6, which initially means about a 33-percent reduction in the rates. It is conceivable that the rates will be reduced even further.

There are several new commercial developments in town. The Russell Sportswear Corporation last year reopened its operation and hired 250

employees. Before the water system renovation, the reopening could not be contemplated because the company could not obtain insurance. For the same reason, Key Market, at the old intersection of routes 127 and 80, has recently been able to enlarge its operation. It is part of the only shopping center in town, which recently expanded to add six new commercial establishments. A new company called First Truss, Inc., recently located in the area. It employs 20 persons. All of this activity emphasizes the importance of the availability of fire insurance as a prerequisite to economic growth.

Several residential developments are either under way or being planned. Plans have been submitted for the development of 400 residential units just north of town. The Farmers' Home Administration is being contacted as the primary funding authority for extending a waterline to the densely populated Salem-Eli area northeast of town. Obviously, these plans were made possible by the improved availability of water. In addition, a new Farmers' Home 515 project (rural rental housing) for 18 units has recently been completed. This project, called Grace Manor, is a complex for elderly and handicapped persons.

On the outskirts of town, on Route 127 south of Russell Springs, Middletown Estates, a trailer court of 50 units, is being completed. It will include all the amenities of a planned community, such as swimming and tennis. There is also the Baron Hills subdivision. This is a site of 75-plus acres that has been subdivided into 132 lots for low- and moderate-income families with Farmers' Home financing. When the subdivision was 40 percent built, FmHA withdrew its approval because of inadequate and unsafe water. This project was restarted because of the new water project.

Lastly, a facility to train and treat handicapped children is in the first stages of planning. The board of education will donate a building site. Singer Steve Wariner has already held several fund-raising benefits for it and intends to hold more. No such plans could have

Solving a Water Emergency in a West Virginia Distressed County

Water supply problems in Appalachia do not always center on deteriorated distribution lines, as in Russell Springs, Kentucky. In Gary, West Virginia, there were major problems with all components of the water system—the treatment plant, the storage tank *and* the distribution lines.

Gary is located in the southeastern part of McDowell County, another county identified as distressed under ARC criteria. In 1980 almost a quarter of the county's population (23.5 percent) had incomes below the poverty line; its unemployment rate over the three-year period 1980-82 was 18.5 percent.

Gary is probably best known and remembered for being the last company-owned coal town in the state. U.S. Steel, still the largest employer in the county, owned all the buildings and facilities in the town—the homes, water and sewer systems, fire equipment and so on. It wasn't until 1971 that U.S. Steel turned everything over to the people of Gary, and the town got the right to govern itself. Back in 1971 the population of Gary was 2,500; in 1986, the population is 2,300. Forty percent of its population today consists of retired U.S. Steel workers. Gary is at present the only community in McDowell that owns its own water and sewage systems.

The Gary water system, constructed in 1954, treats approximately half a million gallons per day and serves 840 customers (usually households) in the town subdivisions of Wilcoe, Gary, Thorpe, Venus, Elbert and Filbert.

The whole water system had problems. The treatment plant and the storage

Table 1

Economic Indicators for Russell County, Appalachia and United States*

		Russell County	Appalachia	United States
Unemployment Rate:	1980	15.0%	8.5%	7.1%
	1981	13.3	9.3	7.6
	1982	14.9	12.6	9.7
Percentage of Households below Poverty Line,	1980	32.4%	14.0%	12.4%
Per Capita Market Income,	1981	$3,925	$7,017	$9,028

*As used at the time of original designation as a distressed county.
Source: U.S. Department of Labor; Bureau of the Census.

Table 2

Projects Funded under Distressed Counties Program

Fiscal Year	Total No. of Projects	No.	Percentage of Projects in Year	No. of Counties	Amount of ARC Funding
1983	55	51	93%	39	$11.7 million
1984	52	41	79	44	10.0 million
1985	45	40	89	46	9.9 million
Totals	152	132	n.a.	n.a.	$31.6 million

tank serving the Filbert community were so badly in need of repair or replacement that the city considered them emergencies. The deteriorated distribution lines, some of which were so old they were made of wood, needed to be replaced.

A $305,000 grant to renovate the water system was approved by ARC on September 27, 1983. It was matched with some small cities funds and local funds for a total project effort of $385,000. The project was designed to solve the two emergency problems—the treatment plant and the storage tank; the city of Gary agreed to take on the responsibility for replacing the deteriorated lines gradually, as its finances permitted.

The treatment plant was outdated and inefficient. It was able to sand-filter and chlorinate the water, but the lime process it had to use for treating and lowering the high Ph content of the water was so costly that it was discontinued in 1981. As a result of the hardness of the water, with its high Ph content, skin rashes were prevalent among citizens. They also complained that the heating elements in their hot water heaters burned out quickly. Under the ARC-funded project, a large sand-filtering system was installed, along with the necessary equipment to treat the Ph content of the water with a saline-type (Salt Bryne solution) system, which is economical and efficient.

Mayor Ron Estep, mayor of Gary since 1983, is enthusiastic about the treatment plant and even more excited about the new storage tank, which he calls the "jewel in the crown." Water for the Filbert community of approximately 600 families had to be pumped nine miles uphill to a sump; from the sump, it was pumped to an old storage tank on top of a cliff. The tank was so deteriorated that it no longer held water. The pump at the sump area ran continuously at about 160 lbs. of pressure just to keep a minimum level of water available at the tank. The continuous running of the pump led to enormous electrical bills. Because it was running at so high a pressure, water main breakages occurred about twice a week, leaving 600 families and a large U.S. Steel coal mine employing 400 people without water until the break could be located and repaired.

Now that the ARC-funded project has been completed, the community has a new 100,000-gallon storage tank in a much more accessible location on level ground. The city is saving approximately $500 a month on its electrical bill. Water is actually being stored rather than continuously pumped through the system. The water pressure needed to pump the water from the sump to the tank has been reduced to the normal level of 87 lbs., and the frequency of water line breakage has been greatly reduced.

Mayor Estep says that not only has this project done away with Gary's emergency water problems; it has had other positive results. Four new small businesses have started in the city. A new 120-bed nursing home opened in March, with plans to expand to 180 beds in the very near future. Neither of these could have occurred, says Mayor Estep, without the renovations of the water system.

Economic Indicators in McDowell County, Appalachia and the United States

	McDowell County	Appalachia	United States
Unemployment Rate 1980	13.0%	8.5%	7.1%
1981	14.7	9.3	7.6
1982	27.8	12.6	9.7
Percent of Households below Poverty, 1980	23.5%	14.0%	12.4%
Per Capita Market Income, 1981	$5,226	$7,017	$9,028

been contemplated before there was an adequate supply of water in the area.

The renovation of its water system has meant a lot to Russell Springs. When ARC's finish-up program allocated a substantial portion of its funds to the Region's distressed counties, it specified that much of the effort should go toward helping these counties acquire adequate water and waste disposal systems. ARC believes that these facilities are essential to economic growth.

Although in the first three years of the program all but five of the counties identified as distressed have been affected by ARC projects, some of these projects have been aimed at improving health, education or job training in the counties rather than supplying facilities. It has not been possible to build or renovate water and waste disposal systems in all of the distressed counties that need them.

As someone once said, "Success is a journey, not a destination." In helping Russell Springs repair its water system, ARC, HUD, FmHA and the state of Kentucky have certainly not solved all of the city's problems. But with their assistance, and the leadership and determination of local citizens, Russell Springs has begun its journey.

Comparing Appalachia's Counties with the Nation's

In the years between 1965 and 1980, Appalachia made dramatic strides toward the goal of economic parity with the rest of the nation. Data from a recent Appalachian Regional Commission study indicate that since 1980 Appalachia, as well as other parts of the nation, has been undergoing stressful economic changes and geographic realignments that defy simple Sun Belt/Frost Belt characterizations. The Region has suffered a downturn in its economy since 1980, but it entered 1980 with a sounder economic base and a more diversified economy than it had ever had before.

Progress into the 1980s

When the Commission was established in 1965, a major goal was to connect Appalachia with the more prosperous and highly developed regions on either side of it through a highway system that would link isolated areas of Appalachia to national markets. By 1980 about 1,700 miles of that 3,033-mile highway system were completed or were being constructed through some of the roughest terrain in the nation. A 1981 ARC survey of the 13 Appalachian states and the 69 local development districts established that 801 manufacturing plants with 50 or more employees had located within 30 minutes of the Appalachian corridors. These manufacturing plants added 182,700 jobs to the Region, along with an estimated 32,300 jobs in smaller plants, for a total of 215,000 jobs.

Per capita income had moved up from 78 percent of the national average in 1965 to 82.5 percent in 1980.

The proportion of Appalachian people living in poverty had been cut in half and was approaching the national average.

Health care was within a 30-minute drive of residents of all but about 66 of Appalachia's 397 counties, infant mortality was reduced regionwide from 27.9 deaths per 1,000 live births in 1963 to 11.4 in 1982 and the ratio of active nonfederal physicians per 100,000 grew from 90.8 in 1967 to 131.2 in 1981. Nearly 5,000 new physicians opened practices in Appalachia between 1978 and 1982.

The proportion of Appalachians 25 and over with a high school education or more rose from 56 percent of the national average in 1960 to 86.4 percent in 1980.

Outmigration reversed to inmigration in the 1970s, and the Region found itself being an importer of people for the first time since before 1950.

Appalachia's Economy in the Early 1980s

Shocks to the national and international economies in the first half of the 1980s were reflected even more strongly in the Region's economy.

The 1981 to 1983 recession in particular hit Appalachia more severely than the nation as a whole, due to a heavy concentration of coal-mining and manufacturing industries in the Region, on the one hand, and a smaller service and trade economy (associated with a less urban economy) in the Region, on the other hand.

The Region has more than its proportionate share of the industries which have been experiencing a relative decline in the United States for many years. Such industries found it harder than most to recover their former employment levels after the recessions of the mid 1970s and early 1980s ended.

The high international value of the dollar encouraged imports and adversely affected Appalachian exports of primary and fabricated metals, wood products, chemicals, textiles and apparel, glass products and coal.

From 1982 to 1984, high interest rates, combined with low levels of manufacturing activity and excess plant capacity, retarded investments in plants and equipment and sharply lowered the rate of new construction in many parts of the Region.

The Region's Economy by 1984-85

Appalachia's unprecedented rate of economic growth during the 1970s slowed in the early 1980s, and the Region's economy began to shrink in relationship to the nation's economy.

Employment. By April 1985 the Region had 7.8 percent of the nation's employment compared with 8.3 percent in 1980. The gain in employment for the Region between April 1980 and April 1985 was almost nil (52,000), compared with a 7.7 percent gain (7,606,000) in the United States.

Labor Force. The Region made up 8.0 percent of the domestic civilian labor force in 1984, compared with 8.3 percent in 1980. The labor force grew 1.9 percent (173,000) in Appalachia, com-

pared with 6.2 percent (6,604,000) in the nation between 1980 and 1984; if Appalachia had grown at the U.S. rate, its labor force would have increased by 552,000 (more than three times the actual growth).

Per Capita Income. In 1983 the Region's per capita income was 81.2 percent of the nation's per capita income, compared with 82.5 percent in 1980. Per capita income climbed 21 percent ($7,836 to $9,485) in Appalachia, compared with 23 percent ($9,494 to $11,667) in the nation between 1980 and 1983.

Unemployment. In 1984 the Region had 11.8 percent of the nation's unemployed, compared with 9.9 percent in 1980. Unemployment began to increase faster in the Region than in the nation in 1979 and was still two percentage points higher than the national rate of 7.3 percent in June 1985.

Population. In 1984 the Region had 8.7 percent of the U.S. population, compared with 8.9 percent in 1980. Population increased 1.7 percent (337,000) in Appalachia between 1980 and 1984, compared with a 4.2 percent increase (9,612,000) in the nation.

Although Appalachia grew in absolute numbers, the Region clearly began to lose ground relative to the nation between 1980 and 1985. Aware of the effects national and international events were having on the Appalachian economy, the ARC staff expanded its on-going analysis beyond the regional level to a nationwide county analysis to see how all U.S. counties were changing and where Appalachia's counties ranked in the nation.

Economic Changes in the Nation's Counties

The ARC staff developed an index to analyze the economic performance of the nation's counties between 1960 and the mid 1980s. Four factors—population, income, unemployment and urbanization—were chosen to measure different aspects of economic change. The factors are sufficiently differentiated that they do not provide multiple measures of the same aspects of economic change. Two of the factors —population and income—were divided into separate indicators measuring level and change over time. (See the box insert on methodology on page 15.)

Each of the factors was ranked and scored, and the scores were added to obtain a combined score for each of the 3,087 counties in the nation. Next, the counties were ranked by combined score from highest to lowest. The counties were then divided into five equal parts, or quintiles. The quintiles were assigned a number from one (highest) to five (lowest).

The ranking, from 1960 to the present, gives a picture of Appalachian counties compared with the nation's counties. Information for 1970, 1980 and the mid 1980s has been completed. The 1960 data will be compiled this summer.

Distribution of Counties in the Highest and Lowest Quintiles. The two maps following page 14 show some startling new alignments of fourth- and fifth-quintile counties (the two lowest ranks). The most visible changes occurred in an area running from both sides of the Great Lakes south to New Orleans, where a wedge of counties is shown to be performing poorly in the mid 1980s. This wedge contains 776 counties in the two lowest quintiles, 241 counties in the middle quintile, 209 counties in the second quintile and only 132 counties in the first or highest quintile.

The 1970 map shows that the majority of counties in the Great Lakes area had been in the first and second quintiles in the 1970 period. By the mid 1980s, a large concentration of counties in the Great Lakes area had shifted to the lowest two quintiles. In 1970, Ohio, Michigan, Indiana, Illinois and Wisconsin had 229 counties in the first and second quintiles. By the mid 1980s the number of counties in these states in the top two quintiles had dropped by more than 50 percent, to 110 counties. At the bottom of the economic profile, this area had 135 counties in the two lowest quintiles in 1970,but by the mid 1980s, 259 counties ranked in the two lowest quintiles.

The Great Lakes area was one of five economically well-off areas in the nation in the 1970s, but it had lost this position by the mid 1980s. There were still five concentrations of counties in the nation ranking in the top two quintiles, but one was a new concentration encompassing Nebraska, Kansas, Oklahoma and Texas. These four states had 182 counties in the two lowest quintiles in 1970. By the mid 1980s, these states had only 88 counties in the two lowest-ranking quintiles. These same states had 209 counties in the first and sec-

ond quintiles in 1970. The number increased to 315 by the mid 1980s.

Four clusters of counties in the first and second quintiles can be distinguished on both the 1970 and the mid 1980s maps. One is in California, stretching from Sacramento in the northern part of the state, south to San Diego. Another is around Atlanta, Georgia; it included 15 counties by the mid 1980s. A third encompasses the coastal counties of Florida. The fourth includes the eastern seaboard megalopolis, stretching from Maine in the north to Richmond, Virginia, in the south. Almost 85 percent of the counties in this area are metropolitan counties.

South of Richmond, the Piedmont area in North and South Carolina is beginning by the mid 1980s to link the Richmond, Virginia, part of the eastern seaboard megalopolis to the Atlanta area. Only a single tier of counties in northeast Georgia forms a small gap between Maine and Atlanta.

Upward and Downward Shifts of Counties among Quintiles. Another way to examine the changes is to look for downward and upward shifts in counties. Only 2,470 counties could shift downward (a county in the lowest quintile could not go any lower), and only 2,470 counties (those in the second, third, fourth and fifth quintiles) could shift upward.

A little over a third of the counties that could shift downward or upward did actually shift: 842 out of 2,470 shifted downward, and 850 out of 2,470 shifted upward. Most of these shifts, however, involved too small a difference in score to be significant. For this analysis, a shift was considered significant if it involved a shift from one quintile to another. There is an exception: a shift from quintile two to quintile three, or from quintile three to quintile four, or the reverse, was not considered significant because the total range of scores in quintiles two, three and four combined is not so large as the range of scores *within* quintile one or *within* quintile five.

Table 1

Counties in the United States That Shifted Downward Significantly between 1970 and Mid 1980s

Area	No. of States	Total No. of Counties in Quintiles 1 through 4	Counties with Significant Downward Shift	
			No.	Percent
Midwest	8	620	275	44%
Alabama, Kentucky, Mississippi, Pennsylvania, Tennessee, West Virginia	6	338	115	34
Remainder of United States	27	1,512	153	10
United States	51*	2,470	543	22%

* Nine states and the District of Columbia (counted in this total as a state) had no downward-shifting counties.

This analysis reveals that many counties in some southwestern and western states are shifting upward while many counties in midwestern and eastern states are shifting downward.

Downward Shifts. Of the 2,740 counties that could have shifted downward by the mid 1980s, 842 did shift downward, and 543 (22 percent) had a significant downward shift. As Table 1 on page 10 shows, most of them were in the Midwest and a bordering group of Appalachian states. These counties make up the wedge of poorly performing counties shown on the mid 1980s map following page 14.

Of the 543 counties shifting significantly downward, 275 were in eight midwestern states: Iowa, Illinois, Ohio, Indiana, Wisconsin, Michigan, Missouri and Minnesota. These eight states had 620 counties in the top four quintiles in 1970, so that nearly one-half, that is, 275 out of 620 counties, had a significant shift downward by the mid 1980s.

The next largest group of the 543 significantly downward-shifting counties appeared in six contiguous states, including Pennsylvania, West Virginia, Kentucky, Tennessee, Alabama and Mississippi. These six states had 338 counties in the top four quintiles in 1970. By the mid 1980s, 115 counties (34 percent) had shifted downward significantly.

There were 27 other states in the nation with a total of 153 significantly downward-shifting counties. They were widely scattered throughout the United States from Hawaii, Arizona, Nevada and Idaho in the west to Maine and northern Florida in the east. In these 27 states, only 10 percent of the counties that could have shifted downward significantly did so.

Upward Shifts. There were 2,470 counties in the second, third, fourth and fifth quintiles that could move upward by the mid 1980s. The largest concentration of counties that shifted upward significantly was located in 11 western and south central states: Arkansas, Louisiana, Oklahoma, Texas, New Mexico, Colorado, Utah, Wyoming,

Table 2

Counties in Appalachia and the United States That Shifted Downward Significantly between 1970 and Mid 1980s

Area	No. of States	Total No. of Counties in Quintiles 1 through 4	Counties with Significant Downward Shift	
			No.	Percent
Appalachian Region	13*	281	84	30%
United States	51**	2,470	543	22%

* Includes all of West Virginia and parts of 12 other states.
** Includes the District of Columbia.

California, Oregon and Washington. Nevada and Idaho are excluded from this geographic concentration because their significantly downward-shifting counties outnumbered their significantly upward-shifting counties.

As Table 3 shows, the highest percent of counties with significant upward shifts occurred in Texas, where 124 of the 206 counties (60 percent) in the lowest four quintiles shifted upward significantly.

Other states with a large percentage of significantly upward-shifting counties included Alaska and North Dakota, along with four small but densely populated northeastern states (New Jersey, Massachusetts, Delaware and New Hampshire), where 47 of the 81 counties (58 percent) in the lowest four quintiles shifted upward significantly.

In four other states—Kansas, South Dakota, Georgia and Florida—24 percent (73 of 307 counties in the four lowest quintiles) shifted upward significantly during the period between 1970 and the mid 1980s.

In the remainder of the United States, there were only 137 scattered counties, or 10 percent of the total counties in the four lowest quintiles, that shifted upward significantly.

With only 44 counties shifting upward significantly, the Midwest was the region with the smallest share of significant upward shifts.

Population and Income Characteristics of the Quintiles. Table 5 on page 14 shows the population and average per capita income for each quintile for 1970 and the mid 1980s. The percentage of the nation's population that was in the top two quintiles dropped slightly to just over 81 percent over the period. The gap in per capita income level between the top two quintiles and the lower three narrowed somewhat between 1970 and 1983. The per capita income index for the top two quintiles did not vary appreciably. The per capita income index shows improvement in the third, fourth and fifth quintiles between 1970 and the mid 1980s. The index in the fifth quintile

Table 3

Counties in the United States That Shifted Upward Significantly between 1970 and Mid 1980s

Area	No. of States	Total No. of Counties in Quintiles 2 through 5	Counties with Significant Upward Shift	
			No.	Percent
Texas	1	206	124	60%
Other South Central and Western States	10	443	143	32
Alaska, North Dakota and Northeastern Seaboard	6	81	47	58
Kansas, South Dakota, Georgia and Florida	4	307	73	24
Remainder of United States	25	1,433	137	10
United States	51*	2,470	524	21%

* Four states (Connecticut, Hawaii, Iowa and Rhode Island) and the District of Columbia (counted in this total as a state) had no upward-shifting counties. The District of Columbia and Rhode Island had no counties outside the first quintile.

Table 4

Counties in Appalachia and the United States That Shifted Upward Significantly between 1970 and Mid 1980s

Area	No. of States	Total No. of Counties in Quintiles 2 through 5	Counties with Significant Upward Shift	
			No.	Percent
Appalachian Region	13*	357	25	7%
United States	51**	2,470	524	21%

* Includes all of West Virginia and parts of 12 other states.
** Includes the District of Columbia.

moved from 61.3 in 1970 to 65.6 in the mid 1980s. The largest change was in the fourth quintile where the per capita income index moved from 68.7 in 1970 to 73.4 in the mid 1980s.

Appalachia between 1970 and the Mid 1980s

With 12.9 percent of the nation's counties, the Appalachian Region should have about 79 counties in each quintile if its performance mirrored that of the nation. In both time periods, it falls short of this in the first and second quintiles and far exceeds its share in the fourth and fifth quintiles. Appalachia had 40 counties in the top quintile in 1970. It lost 20 counties in the first quintile by the mid 1980s. The Region had 61 counties in the second quintile, 68 counties in the third quintile, 106 in the fourth quintile and 142 counties in the fifth quintile by the mid 1980s.

The 142 Appalachian counties in the lowest quintile constituted 23 percent of the 617 worst-off counties in the nation. Although they suffered very high unemployment rates compared with the nation and their per capita income has grown less rapidly in the past few years, almost one-third of these Appalachian counties had above-average population growth in recent years.

Most of the Appalachian counties in the fourth quintile rim the worst-off counties in the Region, with an additional concentration in Alabama and Mississippi. Again, these counties had severe problems with unemployment recently. These 106 counties also had lower incomes and less rapid income growth compared with counties in the nation outside the Region in this quintile.

The counties in the middle quintile are widely dispersed throughout the Appalachian Region except for Appalachian Kentucky and the state of West Virginia, where they are conspicuous for their scarcity. Again, the Appalachian counties in this quintile have markedly high unemployment rates compared to the counties in this group in the rest of the nation.

Almost three-fourths of the 61 Appalachian counties in the second quintile are in the South. Moreover, they tend to be concentrated in the Carolinas and Georgia.

Seventeen of the 20 Appalachian counties in the first quintile are in the southern half of the Region, and 15 are in metropolitan areas. The major cluster on the Region's border adjacent to Atlanta accounts for six of the 20 counties.

The following people contributed to this research analysis: Joseph Cerniglia, Robert Decker, Kathleen Gujral, Salim Kublawi, Judith Maher, Monroe Newman, Jerome Pickard.

Table 5

Population and Average Per Capita Income for Each Quintile in the United States 1970 and Mid 1980s

Quintiles for Mid 1980s

Quintile	July 1983 Population	Percent of U.S. Population	Per Capita Income	Index (U.S. = 100)
1	149,603,096	64.0%	$12,833	109.8
2	40,542,152	17.3	10,546	90.2
3	21,390,472	9.1	9,460	80.9
4	13,959,530	6.0	8,575	73.4
5	8,441,173	3.6	7,669	65.6
Total	**233,936,490**	**100.0%**	**$11,687**	**100.0**

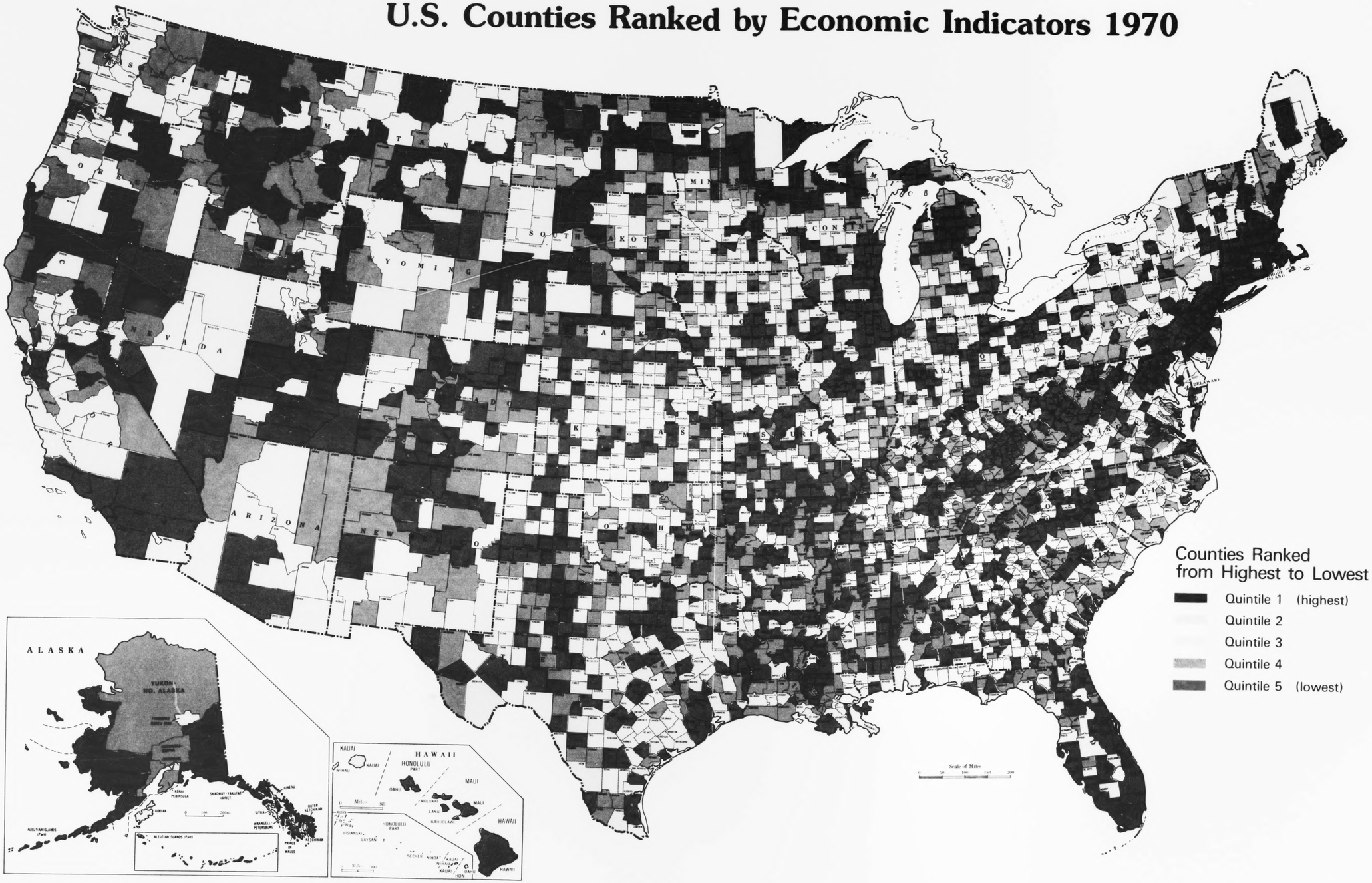
Quintiles for 1970

Quintile	July 1970 Population	Percent of U.S. Population	Per Capita Income	Index (U.S. = 100)
1	137,025,516	67.2%	$ 4,321	109.5
2	33,640,411	16.5	3,517	89.2
3	16,136,985	7.9	3,052	77.4
4	10,919,029	5.4	2,711	68.7
5	6,076,781	3.0	2,418	61.3
Total	**203,798,722**	**100.0%**	**$ 3,945**	**100.0**

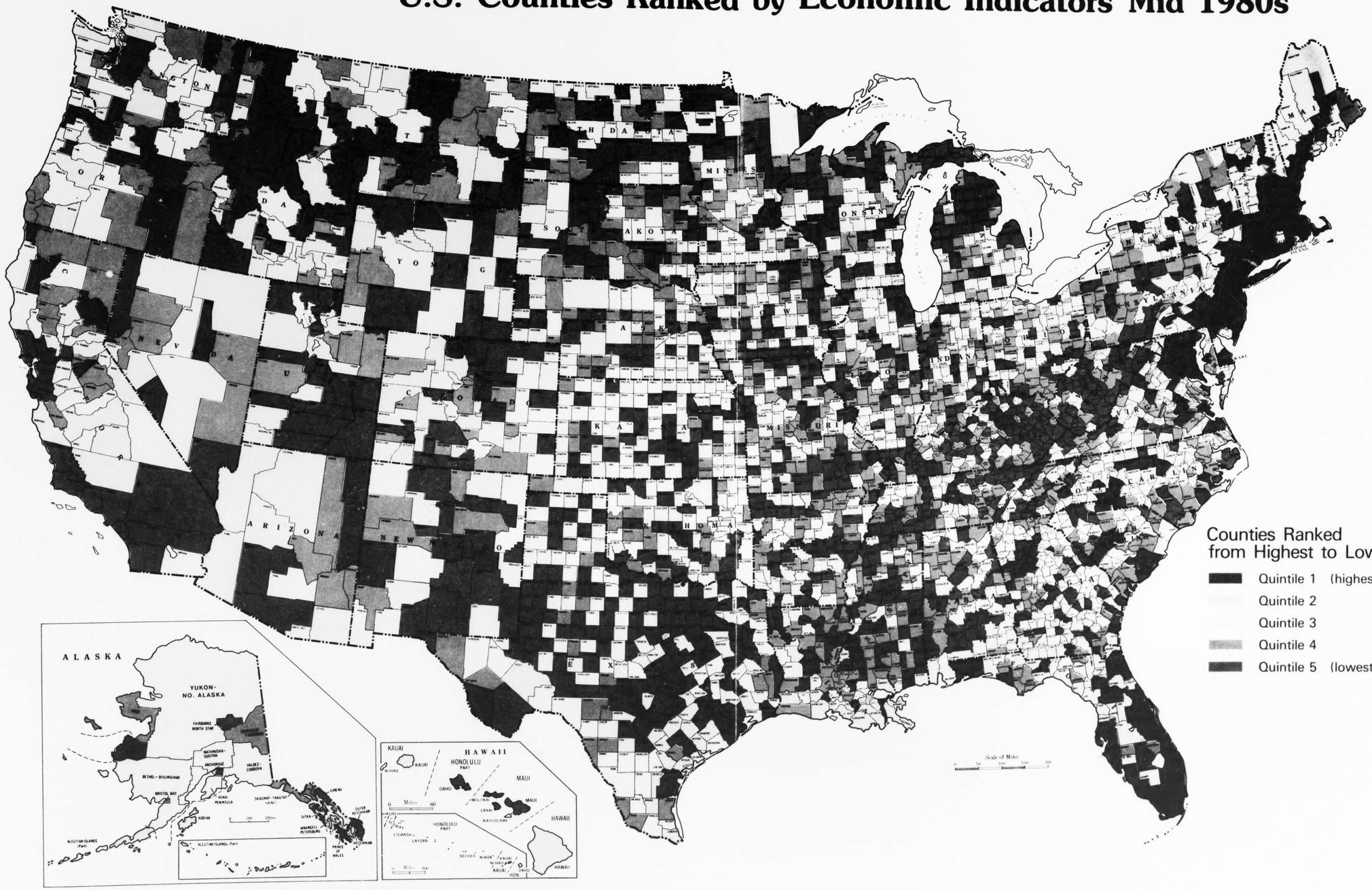
Gatefold Maps of U.S. Counties Ranked by Economic Indicators 1970 and Mid 1980s

These maps may be removed from the magazine to facilitate understanding the text of the article.

U.S. Counties Ranked by Economic Indicators 1970



U.S. Counties Ranked by Economic Indicators Mid 1980s



Methodology

The index developed by the Appalachian Regional Commission for the nation evolved from an index with 14 variables that was used to test economic changes in the 397 Appalachian counties. The 14 variables were subjected to factor analysis, a statistical technique, to identify how closely one variable related to another. In cases where close relationships existed, for example, between income and poverty, only one—income—was chosen.

This process singled out four factors—population, income, unemployment and level of urbanization—as most suitable to rank the nation's counties for this analysis.

The analyses for 1970, 1980 and the mid 1980s have been completed. Analysis of the 1960 data will be completed this summer.

Indicator Description

Population. Population was split into two indicators—size and percentage change. For the 1970 and 1980 analysis, population size for the latest year in the decade and the percentage change over the decade preceding the latest year were used. For the mid 1980s analysis, population size for 1983 and the percentage change between 1980-83 and 1970-80 were used.

A weight of one was assigned to the population assessment. Since three measures were used in the mid 1980s analysis, the 1983 size was assigned a weight of 0.5, and the two changes over time were each assigned a weight of 0.25. For other years, population size was weighted 0.5, and population change 0.5.

The population data are based on U.S. Bureau of Census estimates for July of each year to correlate with the U.S. Department of Commerce data used in the calculation of per capita total personal income.

Income. The income factor is comprised of two measures: level of income per capita and percentage change in per capita income. Total personal income and population estimates from the U.S. Department of Commerce were used to measure the levels of income per capita for 1970, 1980 and 1983 and to measure the percentage change in per capita income between 1959 (the year measured by the U.S. Department of Commerce instead of 1960) and 1970. For the 1980 analysis, the percentage change in per capita income between 1970 and 1980 was calculated. For the mid 1980s analysis, percentage change in per capita income between 1980 and 1983 was used.

A weight of one was assigned to income. Because each period of study has two income measures, a weight of 0.5 was given to each measure.

Unemployment. The unemployment factor uses data from the 1970 and 1980 censuses. Civilian labor force and employment data from March 1970 and March 1980 were used to derive unemployment rates. For the mid 1980s analysis, unemployment data from the U.S. Department of Labor for March 1983, March 1984 and March 1985 were added together. These rates, the three most current unemployment rates available for March, were chosen to avoid using a single year during the early 1980s when unemployment rates were atypically high.

A weight of one was assigned to the unemployment factor.

Urbanization Level. In the test analysis of Appalachia, an economic diversification index was developed for each of the 397 Appalachian counties. Since the time and cost to develop the same index for the rest of the counties in the nation was prohibitive, the level of a county's urbanization was substituted in the nation as well as Appalachia. Factor analysis showed urbanization to be closely associated with industrial diversification.

Urbanization level was expressed as the percentage of urban population to total population in each area based on data in the censuses of 1970 and 1980.

A weight of one was assigned to this indicator.

Ranking the Counties

All counties in the nation were ranked from highest to lowest on each indicator. The county that was highest was given a score of one, and the county that was lowest was given a score of 3,087.

The scores of each county for each indicator were added to get a combined score. The best possible rank score would be four if a county ranked first in the nation in all indicators, and the worst possible score would be 12,348. The actual extremes in 1970 scores were 1,081 to 11,551, and in the mid 1980s analysis 674 to 11,347. The combined scores for all 3,087 counties were then ranked from highest (smallest summed number) to lowest (largest summed number).

In the case of tie scores, the county with the largest population was ranked higher.

The ranked combined scores for the 3,087 counties were then divided into quintiles. Because 3,087 cannot be evenly divided by 5, the quintile breaks were made as follows: quintile one, 617 counties; quintile two, 618 counties; quintile three, 617 counties; quintile four, 618 counties; and quintile five, 617 counties.

Briefly

ARC Meeting Approves FY 1986 State Allocations and Spending Plans

On February 25, the Appalachian Regional Commission, meeting in conjunction with a meeting of the National Governors Association, approved both the allocations among the Appalachian states for ARC's FY 1986 program and the state plans determining how each state will spend its FY 1986 allocation. Three reports were also presented at the meeting: a videotaped report on the current effort to reduce the Region's school dropout rate, a report on the status and future of the Appalachian highway program and a summary of the preliminary findings of the Commission's economic report.

After the report on the Appalachian Development Highway System, the Appalachian governors unanimously passed a resolution reaffirming their commitment to the program and setting up a committee of governors to explore alternatives for obtaining financing to finish the system, completion of which is jeopardized by the Commission's uncertain status.

Dr. Monroe Newman (standing, right) presents the preliminary findings of the economic report to the Appalachian Regional Commission meeting. Executive Director Francis E. Moravitz is indicating on the map (see gatefold in center of the magazine) the area under discussion. Emma Rodriguez

Allocations for FY 1986

Congress appropriated $120 million for the FY 1986 Appalachian program. Of this sum, the states will spend $85 million to close some of the critical remaining gaps in the Appalachian Development Highway System, in line with the priorities of the Appalachian finish-up program instituted three years ago, and to build access roads.

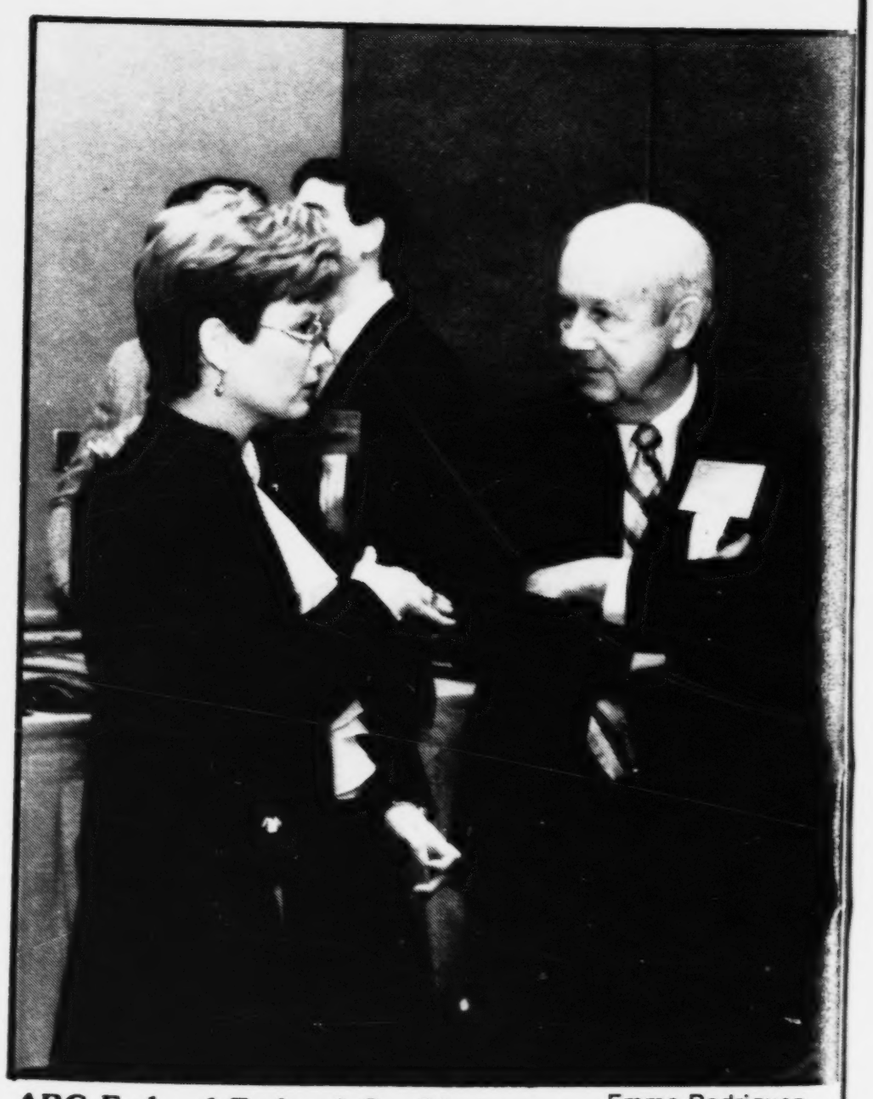
An allocation of $27.8 million was approved for the jobs and private investment program, whose objectives are to create more jobs and stimulate private investment in the Region. The distressed counties program, designed to provide the Region's worst-off counties with basic public facilities, especially drinking water and waste disposal, will receive $3.4 million. Support for the 69 local development districts will amount to $2 million, while $1 million will be used for technical assistance and research.

School Dropout Reduction Film

ARC Federal Co-Chairman Winifred A. Pizzano presented a filmed report on the progress of an initiative begun a year ago to reduce the school dropout rate in Appalachia. ARC then made a $1-million grant to the nonprofit Appalachian Foundation to be used to match funds from communities and school districts undertaking dropout reduction projects.

To date the Foundation has granted funds for projects in 9 states, which are expected to reach 23,000 actual and potential dropouts.

The film portrayed the participation of several Appalachian governors in this initiative. In Atlanta last June Governor Joe Frank Harris of Georgia hosted and led a conference on dropouts at which educators and civic leaders heard suc-



ARC Federal Federal Co-Chairman Winifred A. Pizzano and Governor Arch A. Moore, Jr. Emma Rodriguez

cessful projects on dropout reduction described by experts. Governor Arch Moore of West Virginia chaired the Appalachian Foundation's distribution committee, which reviewed the many proposals on dropout reduction submitted for funding. Governor Martha Layne Collins of Kentucky, current states' co-chairman of ARC, has made dropout reduction a priority for her state, with a 28-county program now under way.

Highway Report

In response to a request from Congress, the Appalachian governors in FY 1981 proposed a highway finish-up program that would last eight years (1983-90), require $2.27 billion ($1.95 billion for the Appalachian development highways) and permit construction of 550 miles with ARC assistance. The Appalachian states would build a minimum of 70 miles, and the remaining 680 miles would be constructed from other sources.

Since 1982 ARC appropriations for the highway system, however, have dropped dramatically. In FY 1980 appropriations were $229 million; in FY 1985 they were $85 million, so that many fewer miles than anticipated have been placed under construction each year. From FY 1973 to FY 1981, an average of 72 miles were placed under construction each year. Since then, the average has been only 41 miles. As of September 30, 1986, 322.4 miles of the finish-up total will remain to be constructed with federal funds, and the cost of building them would be $1.6 billion, or nearly as much as was anticipated for building all of the miles proposed in the finish-up program in 1981.

At the Commission meeting, former Kentucky Senator Walter Huddleston told of the discussions he had had with members of Congress on the future of the ARC highway program.

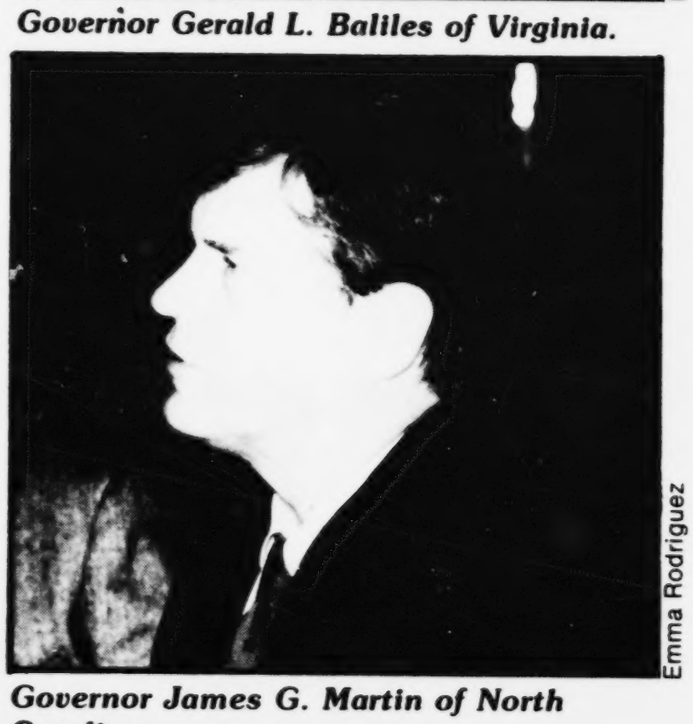
The Appalachian governors voted to form a committee to explore possibilities for long-term financing of the Appalachian Development Highway System, after resolving that "failure to complete in a more timely fashion will severely limit the impact of the substantial investment already made and will be a significant blow to economic development efforts in the Region."

Emma Rodriguez

Governor Dick L. Thornburgh of Pennsylvania.

Emma Rodriguez

Governor Gerald L. Baliles of Virginia.



Emma Rodriguez

Governor James G. Martin of North Carolina.

Emma Rodriguez

Governors Richard W. Riley (left) of South Carolina and Lamar Alexander of Tennessee.

Emma Rodriguez

Governor Martha Layne Collins of Kentucky, states' co-chairman of ARC.

ARC Program Accomplishments Cited at Appropriations Hearing

ARC Federal Co-Chairman Winifred A. Pizzano and States' Co-Chairman Governor Martha Layne Collins of Kentucky appeared jointly on Capitol Hill February 27 at a hearing held by the Subcommittee on Energy and Water Development of the House Appropriations Committee on ARC funding for fiscal year 1987.

The two co-chairmen presented Subcommittee Chairman Tom Bevill, full Appropriations Committee Chairman Jamie Whitten and other subcommittee members with opposing views on ARC's future. Federal Co-Chairman Pizzano outlined the Administration's proposal to terminate ARC, and Governor Collins described the Appalachian governors' request for $311 million to continue phasing out ARC programs in an orderly manner. The Energy and Water Development Subcommittee is responsible for originating ARC appropriations bills.

A cordial atmosphere prevailed at the hearing, with Representatives Bevill and Whitten praising the work of the Commission and indicating that ARC would continue to receive their support. Members of the subcommittee agreed that ARC funding for another year seemed likely. Joining Bevill and Whitten at the hearing were subcommittee members Rep. John Myers, Virginia Smith and Lindy Boggs.

Federal Co-Chairman's Testimony

In supporting the Administration's position, Federal Co-Chairman Pizzano said she believed ARC had largely accomplished its mission. She stated: "No one in the Administration would suggest that poverty has been completely eliminated . . . but to remember the Appalachia of 1975 is to appreciate the Appalachia of 1986. Today residents of Appalachia are far healthier, better educated, more highly skilled and wealthier than they were when ARC began."

The federal co-chairman also presented a slide show detailing progress in ARC's initiative against school dropouts, which reported that projects have been funded in 32 Appalachian school districts, reaching 23,000 potential dropouts. Subcommittee members and the audience applauded the presentation.

States' Co-Chairman's Testimony

Governor Collins presented a budget request from the Appalachian governors for $311.2 million, about the same level requested for FY 86. Of that amount, $234 million would be allocated for highways and access roads, $70 million for area development, $5 million for local development districts and technical assistance, $1.75 million for the federal share of Commission expenses and $450,000 for expenses of the office of the federal co-chairman.

In giving her testimony, Governor Collins emphasized the need for continued ARC funding, especially in reference to two programs, education and highways. Citing the dropout prevention program launched by ARC and the Appalachian Foundation in 1985, she noted that in Kentucky, "We are using much of our ARC help to prevent dropouts and improve illiteracy. This is money we still desperately need for public facilities and other development hardware, but—in my opinion—we often need it even more for education."

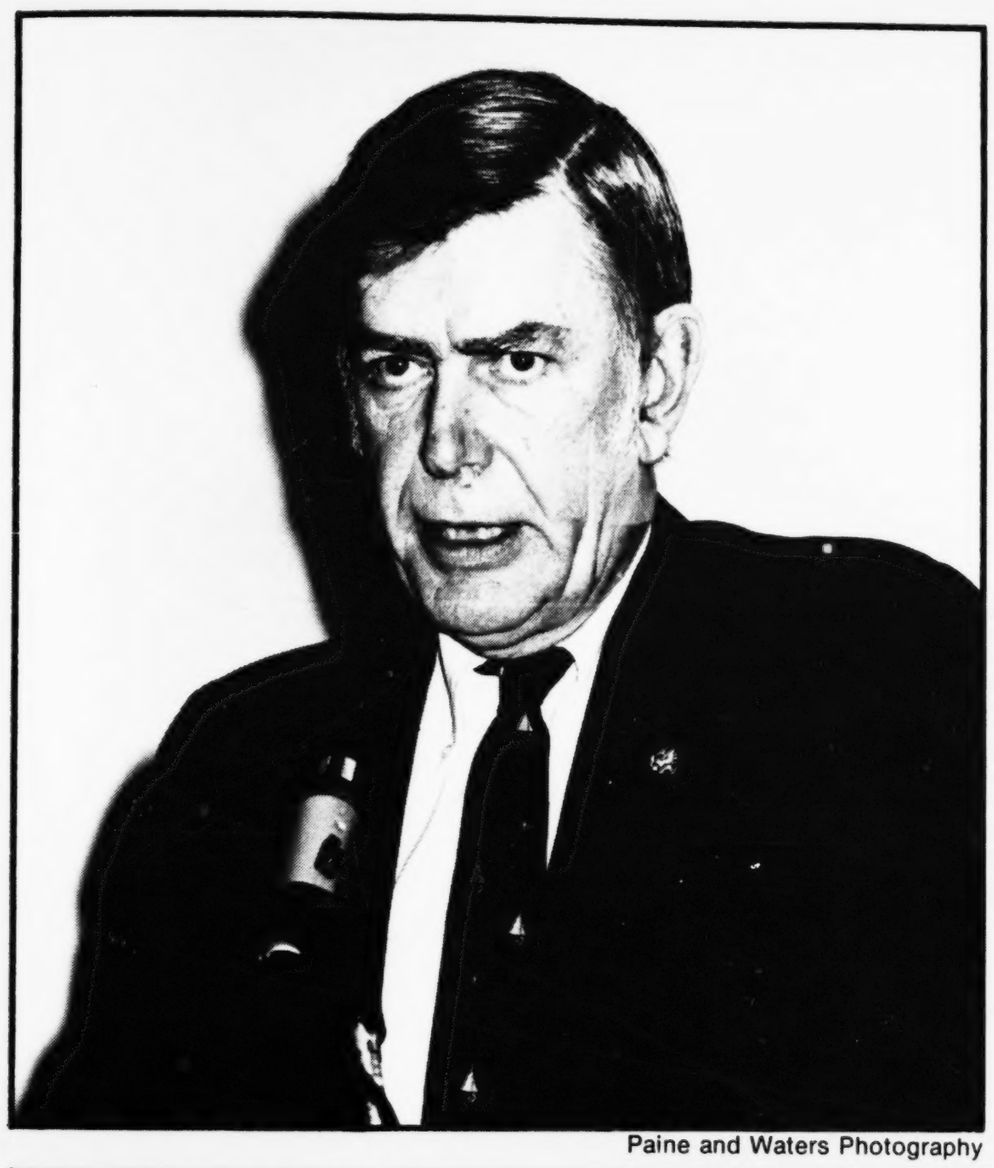
Highlighting the request for additional highway funds, Governor Collins pointed out that in 1981 the Appalachian governors had recognized the need to scale back the proposed system and had submitted a relatively modest budget request for this purpose. Actual appropriations since the beginning of the finish-up program had totaled far less than the amount required even for the scaled-down version. Returns from the highway system to date, in terms of economic development gains, have been impressive, Governor Collins said, and the request for FY 87 funding is closely targeted to the most critical remaining gaps.

LDD Conference Focuses on Future LDD Role

The 22nd local development district (LDD) conference took place March 9-11 in Washington, D.C. Board members, officials and staffs of the districts discussed the future of the LDDs, especially the methods that districts would probably adopt to replace some of the direct federal funding they have received in the past (see related article on page 22).

The conference honored the following past presidents and conference leaders of the Development District Association with plaques:

Presidents
Paul G. Dentiste
Howard J. Grossman
Thomas A. Closser
Robert E. Shepherd
Patrick R. Bell
George Sutherland
Bruce K. Robinette
Stephen C. Mandes
Donald S. Wakefield



Paine and Waters Photography

Paine and Waters Photography

(LEFT) Representative William J. Clinger of Pennsylvania's 23rd district spoke at the LDD conference breakfast on March 11. (BELOW) A panel of LDD directors discussed the directions local development districts might take in the future: (left to right) George Sutherland of the North Georgia Area Planning and Development Commission, Sam Dayton of Georgia Mountains Planning and Development Commission, Howard J. Grossman of the Economic Development Council of Northeastern Pennsylvania, Vernon R. Kelley III of the Three Rivers Planning and Development District of Mississippi, Bruce K. Robinette of LENOWISCO Planning District Commission of Virginia and Robert E. Shepherd of the Land-of-Sky Regional Council of North Carolina.

Conference Leaders
Vernon M. Spangler
James L. Weaver
James David Salisbury
Donald R. Hinson
Ned Tucker
Gary Voketz
Malcolm H. Holliday
Richard Orten

Representative William J. Clinger of Pennsylvania's 23rd district, a member of the House Public Works and Transportation Committee, spoke at the breakfast March 11 on the future federal role in economic development. He predicted that there would be fewer categorical grant programs for economic development and that federal funding for basic public facilities would be reduced. As a result, greater initiatives would have to be developed relying on state and local resources to fill the gap. The Public Works Committee, he said, was showing some interest in developing at the federal level a fund that could be used for the repair and expansion of infrastructure.

New officers of the Development District Association announced at the conference were: president, R. Percy Elkins of the Kentucky River Area Development District; vice president, William Hess of New York's Southern Tier Central Regional Planning and Development Board; secretary, Vernon R. Kelley III of Mississippi's Three Rivers Planning and Development District; and treasurer, Sam Dayton of Georgia Mountains Planning and Development Commission.

It was announced at the LDD conference that R. Percy Elkins (center above) of the Kentucky River Area Development District, Inc., was the new president of the Development District Association and Sam Dayton (left) of Georgia Mountains Planning and Development Commission its new treasurer. Paul G. Dentiste (right) has been president of the association for the past year.

New National Adult Literacy Program Coming

A Word from the Office of the Alternate Federal Co-Chairman

In Appalachia adult illiteracy is a serious block to economic development. Appalachian industries, including the instrument and electrical companies that have been springing up throughout our Region, have few job slots for illiterate employees. Factories and businesses hesitate to relocate into an area that lacks a large literate work force.

Illiteracy also prevents personal growth. Appalachians who cannot read above a fifth-grade level find it difficult to vote, to pass drivers' license tests, to write checks or even to read stories to their children.

At present many good adult literacy programs are serving communities in Appalachia, but we need to make those who need help aware of these programs. We also need to encourage new adult literacy centers in areas where none exist. So it is with pleasure that we welcome the opportunity to work with an important new adult literacy effort, Project PLUS.

PLUS (**p**roject **l**iteracy **U.S.**) is a national media outreach program intended to help reduce adult illiteracy. Beginning in September of 1986 and continuing during the broadcast season, until June 1987, both the American Broadcasting Companies (ABC) and the Public Broadcasting Service (PBS) will provide on-air national coverage of the illiteracy problem in all varieties of news and informational programming. To further the awareness of the problems of adult illiterates, the entertainment division of ABC will include the subject of illiteracy in the story line of dramatic programming in children's daytime programs as well as in primetime programs. ABC and PBS will use local programming to supplement national programming.

Recently five public television licensees throughout the country, including Kentucky Educational Television (KET), formed the Public Outreach Alliance to deliver outreach programming to PBS stations on a regular basis. PLUS will be a major project of the alliance with Pittsburgh's WQED as the producing station.

Let's be prepared for this autumn's media outreach program. The Appalachian Regional Commission has issued small grants to some local volunteer groups and hopes to encourage continuing adult literacy programs in our counties.

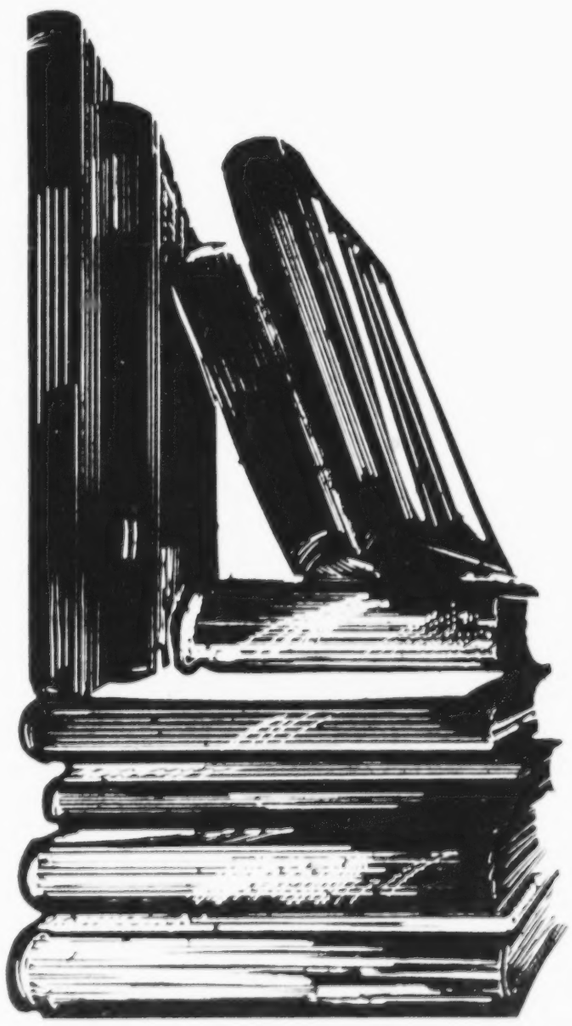
The problem of adult illiteracy can be remedied if we have literacy programs within reach of everyone in Appalachia and if those who need help can be motivated to learn. We at ARC see PLUS, which is designed to support community task forces with the cooperation of local PBS stations and ABC affiliates, as a new and important resource for Appalachia.

The co-project directors of PLUS are Margot Woodwell, vice president and station manager, WQED, 4802 Fifth Avenue, Pittsburgh, Pennsylvania 15213; and Dr. John E. Harr, vice president, Office of Communication, ABC, 1330 Avenue of the Americas, New York, New York 10019. Inquiries on outreach participation are welcomed and should be directed to WQED at 412/622-1491.

Until the PLUS campaign gets under way, there is something you can do. You can help reverse the tragic waste of growing illiteracy in our country by identifying and working with existing literacy programs in your community. Call the Coalition for Literacy at this toll-free number: 1-800-228-8813.

PLUS
PROJECT LITERACY U.S.

abc/PBS



Jacqueline L. Phillips

Jacqueline L. Phillips
Alternate Federal Co-Chairman

Appalachian Local Development Districts Evolve to Meet New Challenges

By Jonathan D. Linkous

In the last five years dramatic changes have altered the purpose and funding of Appalachian local development districts. Fifteen years ago most development districts were primarily occupied with two activities: assisting local communities with federal grants and preparing regional development plans. The major part of development district funding came from the Appalachian Regional Commission and other federal agencies.

Today the picture of the role and function of development districts is much more diverse. Many federal programs have been reduced or eliminated. Federal aid to state and local governments is often for different purposes and is distributed in new ways. In response, many districts have cut back, diversified and established new priorities. Other districts find themselves at a crossroads with many important decisions concerning their future still to be made.

The changes that have taken place have not always led to a reduction in services from districts or to less support for regionalism. Even within the past two years, as the nation faced major reductions in federal domestic spending, overall financial support for districts grew by 14 percent. This growth has not occurred uniformly, however. Of the 69 districts in the Appalachian Region, the budgets of 26 grew by over 20 percent in the past two years, while 19 declined. Ironically, most of the budget growth for the 26 has occurred as a result of increased federal funding.

Mr. Linkous, formerly ARC's director of district programs, is now deputy director of the National Association of Regional Councils (NARC).

Barnett Chitwood, NGAPDC

Present at the first "developers' tour" sponsored by the North Georgia Area Planning and Development Commission in October 1985 were representatives of Georgia Power, Oglethorpe Power, the Tennessee Valley Authority, the Norfolk and Southern Railroad, Atlanta Gas Light, the Georgia Department of Industry and Trade, C & S Bank and the Business Council of Georgia.

Federal Support Down, Local Services Up

As federal aid to state and local governments has changed in the last five years, most federal programs, where development districts once were called on for help in filling out applications for assistance, have been reduced, simplified, consolidated and/or transferred to state authority. As a result, the grantsmanship function of districts is much less in demand. District staffs that used to work with federal agency guidelines and personnel have had to begin to work more closely with their state capitols, since it is here that many of the once federally controlled programs are now administered as part of new block grant programs.

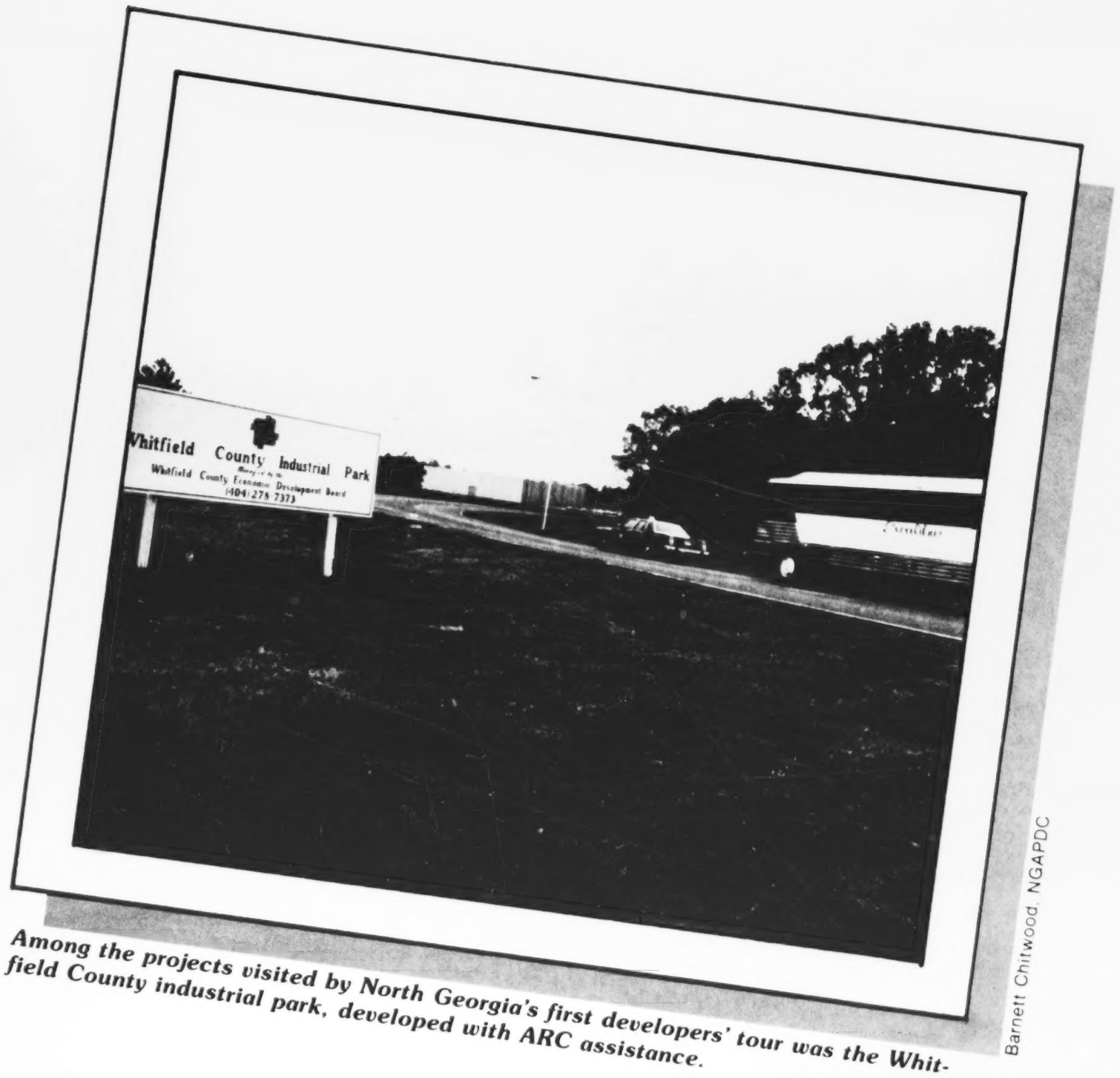
Several federal programs that traditionally provided financial and program support for regional planning activities have been eliminated. Funding for

other federal programs assisting districts, including EDA and ARC, has been reduced. ARC, which once contributed almost half of all operating funds for its districts, today contributes only 15 percent of the average district's budget. However, ARC is still the largest single source of funds for the districts — an indication of how diverse current programs and funding sources are.

At the same time that they have lost funding for regional planning, districts have increasingly been called upon to plan and administer other federal programs on multicounty levels. Today, 40 of the 69 districts in Appalachia administer federally funded programs that provide services to the elderly; this represents the second largest source of financial support for Appalachian districts. There are 34 districts that plan and assist in administering programs funded under the federal Job Training Partnership Act. Districts located in metropolitan areas also receive federal funds for planning and coordinating transportation systems, such as highways and mass transit facilities, that cross various jurisdictions. Currently, 20 districts in Appalachia are involved in transportation planning or coordination.

Local governments are finding it increasingly more cost effective to use the resources of their regional organizations to plan and administer programs and projects. While local assessments for LDDs fell by 2.2 percent over the last two years, local funding for districts in return for services increased by 36.0 percent. Today, with 55 districts receiving funds for local services, the average district receives almost as much for local services as it does from local assessments.

Districts have also been increasingly involved in new types of activities not traditionally considered governmental functions. One of the newest and most important activities for many districts is enterprise development, which includes administering revolving loan funds and industrial incubators and providing small business assistance. Local governments have also turned increasingly to the staffs of their districts to provide economic forecasting and analysis and to develop and implement regional tourism and promotion programs.



Barnett Chitwood, NGAPDC

Among the projects visited by North Georgia's first developers' tour was the Whitfield County industrial park, developed with ARC assistance.

While many of these programs provide an important source of funds to support district organizations, they do not provide the broad general support for development district activities that existed in the past. With the reduction of federal funding for most traditional activities, districts now obtain funding from as many as 20 different sources. Many districts have started charging local governments for services once paid for by the federal government. Some districts have reduced services and staff. Others have changed focus and become special-purpose organizations — for example, primarily area-wide agencies on aging.

Typical Changing Districts: 1. Georgia's North Georgia

The North Georgia Area Planning and Development Commission, headquartered in Dalton, typifies the changes that have taken place in Appalachian local development districts. In 1980 North Georgia received approximately $430,000 to finance its staff functions. Its primary activities were regional planning, grantsmanship for local development projects and administration of senior citizen programs. Almost 40 percent of its budget came from two federal agencies, ARC and EDA. Today the district receives less

financial support from ARC and EDA and is involved in a much greater variety of activities. As a result, its administrative budget has jumped to $950,000.

Under the leadership of George Sutherland, executive director of the North Georgia APDC, the organization has made major changes over the last six years by expanding its program administration and technical assistance services. The district now administers more federal programs, including the federally funded Job Training Partnership Act (JTPA). In fact, JTPA funding is now the largest source of funding for the district. North Georgia is still heavily involved in administering senior citizen programs, including the new Medicaid waiver program. The JTPA and Medicaid waiver programs together account for over 60 percent of the district's budget today, while ARC and EDA account for only about 11 percent.

"Economic and community development currently takes up a much smaller percentage of the district's time, even though it is still our primary reason for existence," states Sutherland. "Many of the economic and community development activities that ARC and EDA used to fund are now funded through contracts with local government." Largely in response to the reduction in federal support, the district has moved aggressively into providing technical services for communities in its area. As a result, Sutherland predicts that increased revenue for the district in the future will not come from increased dues from local governments but through charging for local services. He offers several examples of new or expanded activities that North Georgia is involved in:

Planning services. Several communities have contracted with the district to provide planning studies and to administer zoning controls within their jurisdictions. One large community is considering using the district to staff a newly created urban planning commission. The district also recently provided feasibility studies and regional governmental coordination for a major trade mart primarily for the carpet industry.

Enterprise development. Administering a revolving loan fund, an SBA 503 corporation and HUD CDBG loans for communities in the area has expanded the district's operations into a popular new field which local elected officials in the area seem to regard highly.

Computer services. For several years, the district has been operating a computer facility which provides major support for the federal programs the district administers and furnishes payroll and voter registration services to some member governments.

"All in all, the changes that have taken place are for the better," Sutherland concludes. "Frankly, we used to engage in a lot of activities that never proved very useful when we relied on federal funding for most of our community development activities. Now, with contractual relationships with our member governments, our efforts have their attention and are filling real needs. The results are an improved relationship with our member governments and a boost for staff morale. It makes quite a difference when you see your work being used and appreciated," he adds.

Sutherland feels that North Georgia's perspective and capabilities have enhanced the abilities of local governments to bring about development in the North Georgia area. Sutherland sums it up by saying, "We definitely face a positive future."

2. Pennsylvania's North Central

In the North Central Regional Planning and Development Commission, which serves a six-county area of Pennsylvania northeast of Pittsburgh, the changes are somewhat different. Ronald W. Kuleck, executive director of North Central, explains the role of the district this way: "Over the last 20 years, our organization has filled three successive functions for local governments and industry in our area. The first years were primarily concerned with evaluation planning of economic and social conditions. After this initial stage, the district devoted many years to the design and building of infrastructure projects. Today, the district is primarily involved in putting programs together and implementing them to meet the area's on-going needs."

The district is working to meet these needs in three principal areas. First, practically all of the administrative responsibilities for the operation of primary health care centers in the area, from third-party billing through medical manpower recruitment, are managed on a fee basis by the district. The district also has the responsibility for planning and administering the JTPA program for its area. This is now the district's largest source of revenue. Finally, the district has a very active enterprise development program, ranging from operating an incubator facility to managing a revolving loan and small business technical assistance program. Funding for these activities comes from a variety of sources including EDA, ARC and the Commonwealth of Pennsylvania.

When the agency was struggling through the transition from principally offering grantsmanship assistance for infrastructure projects to operating a series of programs, one of the biggest boosts came when local and state governments in the area decided to use the district to administer the JTPA program. "The current federal revenue crisis may cripple some local governments if they have to underwrite the operation of many programs," Kuleck states. "The move in our area toward using a regional approach for job training programs is a positive sign that many local and state officials are open to reducing costs through regional cooperation. Moreover, we felt that using the district to operate the JTPA program was a vote of confidence for the district from local officials."

In spite of the severe reduction in federal planning programs, Kuleck thinks that the picture isn't all bad for those districts that want to stay alive and do

The Daily Citizen-News, Dalton, Georgia

At a January 1986 press conference, it was announced that the governor's office and the Georgia General Assembly were favorable to construction of the proposed Northwest Georgia Convention and Trade Center (sketch on table in photo), for which the North Georgia district prepared feasibility studies. Attending the meeting: (left to right, clockwise) Kim Gavin, Dalton Daily Citizen-News; State Representative Phil Foster; Commissioner Wayne Alderman; architect Lowell Kirkman; State Representative Tom Ramsey; Commissioner Leonard Cochran; State Senator W.W. Fincher; County Administrator Lenard Whaley; State Representative Roger Williams; Ron Arnold; Mayor Jimmy Young of Dalton; and City Administrator Albert Rollins.

things for their areas. In Pennsylvania, the state has played a key role in making the picture brighter for the districts. "North Central could not have made the progress it has in turning our organization around without a strong state commitment to regionalism in the state administration as well as in the legislature," Kuleck points out.

The future is still uncertain for the district. "The organization will take some licks," concludes Kuleck. "We are still very much concerned about the economic prospects for our area. It is obvious that local governments cannot overcome all of our problems alone." He feels that if local economic problems are to be overcome, his organization must make an alliance with a larger community than just one multicounty area; with the reduction in federal support, the state government is the logical partner to turn to.

Both the North Georgia and North Central districts show that the changes taking place in American federalism have dramatically affected the nature and purpose of local development districts and have transformed the scope of their operations. Many LDDs have found themselves turning more and more into service centers for local, state and federal governments as well as the private sector. Several functions, including their regional planning activities, and in some cases their economic development activities, have been reduced or eliminated as a result. New staff funding tied into specific projects has reduced the districts' flexibility to respond to a variety of local or regional problems as they arise, or to respond quickly to requests for assistance from member governments. One of the problems that has arisen is justifying staff assistance to the smaller or poorer jurisdictions that cannot afford to pay full price for the services they receive. Conflicts between competing demands placed upon staff from large and small communities are surfacing. Some

elected representatives from member jurisdictions are assessing their support and involvement in LDDs solely on the basis of the value of services received for their communities from district staff. Consequently, some of the larger, more prosperous jurisdictions have reduced their support.

3. South Carolina's SCACOG

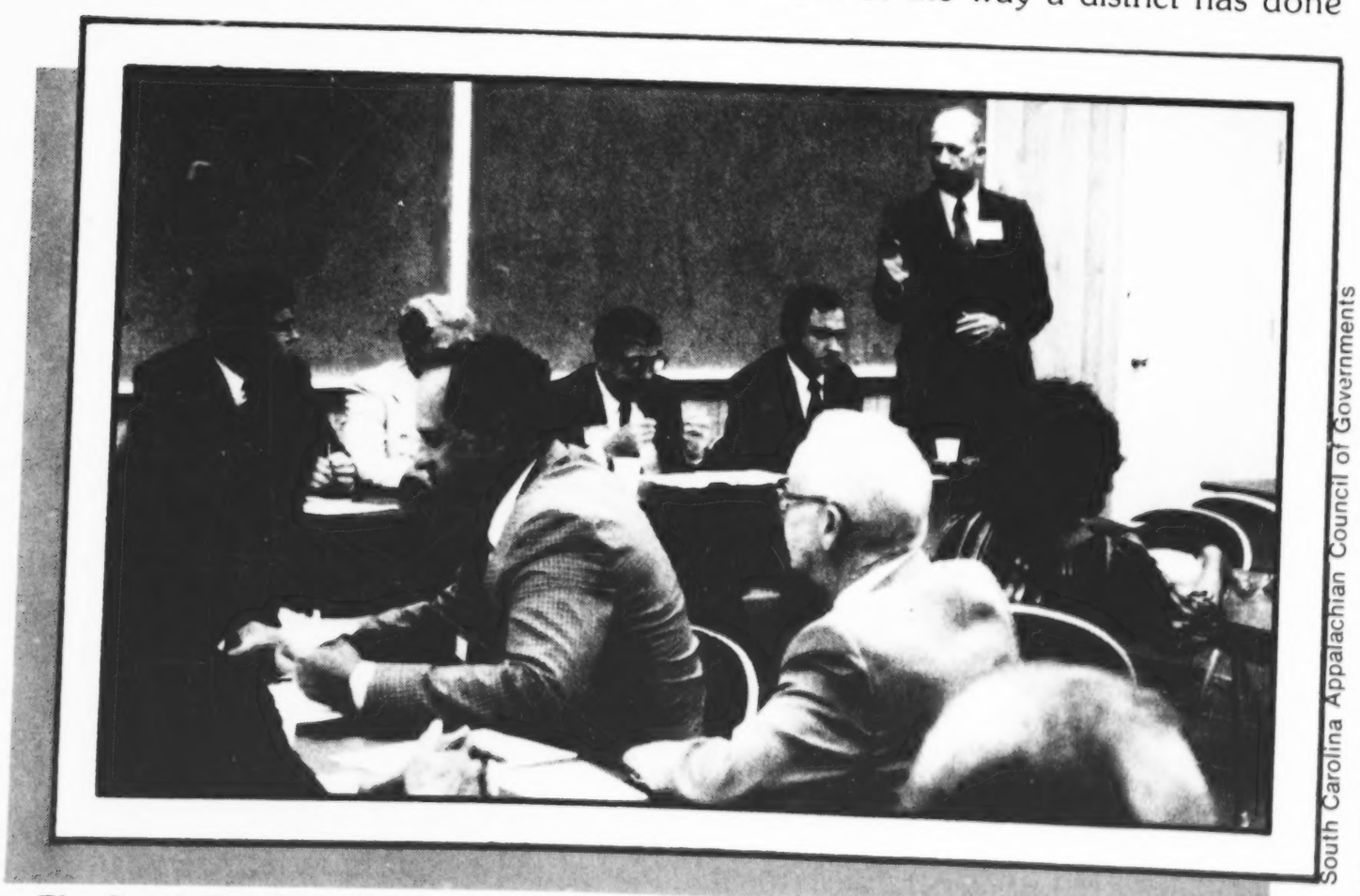
A third district, which has undergone some of the same changes as North Georgia and North Central, has had to take a hard look at this problem of financing for services. In South Carolina, the South Carolina Appalachian Council of Governments (SCACOG) has been in existence for 21 years. It has provided a wealth of planning, grantsmanship and technical assistance services as well as administered senior citizen programs for the six-county area it serves. Where it once employed 45 people, the district has trimmed its staff to 20, largely in response to the reduction and changes in federal funding. At the same time, it has broadened the assistance it provides to local governments and offered development services to the area financed by local assessments from the counties. These services have been well received, and demand from local governments for additional services has increased. Automation and other improvements have also increased staff productivity.

However, this increased reliance on per capita assessments from local governments has created complications. Last year, one of the largest counties in the district voted to reduce its annual contribution to the organization because the county council members felt that the district did not give the county its money's worth in services and that many of the district's services duplicated those provided by some county departments. The primary beneficiaries of these services are the small municipalities within the county rather than the county itself. As a result of the county's action, the district adopted a new funding formula which takes into consideration the reduced needs for services from larger populated areas. The new formula resulted in reduced charges assessed to the county.

Although the situation has been solved and the county again supports the district, the situation brought to light a common problem facing districts. "Much of the way a district has done business is changing," concludes Doug Phillips, executive director of SCACOG. "The larger counties have a point. They are often bearing the burden for the services received by smaller municipalities inside their boundaries. As a result, districts are going to have to reexamine their relationships. Some of the smaller jurisdictions may have to take over some of the charges made to counties by paying for services directly or through assessments."

The district is fortunate in that it currently receives substantial funding from the state and ARC to assist in the cost of its day-to-day operation. But Phillips is quick to point out that to be successful a district must move strongly toward gearing itself to the needs and priorities of local government.

Despite the problems, Phillips sees the future of SCACOG as bright because there is still a real need for a regional organization. For example, the district is actively involved in a multicounty effort to promote the entire area — an effort sponsored by the chamber of commerce in each of the member counties. "While one local community may not be able to compete with neighboring urban areas for jobs, the entire area, working together, can," Phillips states. "The district can have a positive future in economic development by fostering this type of cooperative agreement among local governments."



South Carolina Appalachian Council of Governments

The South Carolina Appalachian Council of Governments board at work.

The Future

Several basic assumptions seem likely to govern the future of Appalachian local development districts:

1. Federal funding for regional planning and general functions of substate districts will remain, at best, at very low levels over the next three years.
2. Federal aid for local governments will continue to be consolidated and reduced. States will continue to play an important role in implementing these federal programs. Most new programs providing aid to local governments will originate in state capitols and use state funds.

Local Development Districts

The Appalachian Region today is served by 69 local development districts (LDDs), multicounty substate organizations that cover all 397 Appalachian counties. Funded in part by the Appalachian Regional Commission, the districts take a variety of forms, from councils of government to regional planning and development agencies. Most districts have been in operation for at least 15 years.

Districts are organized under state authority and constituted to include contiguous counties with similar economic and social characteristics. Their major purpose is to help their counties and communities jointly plan and achieve development goals. Often serving as the implementing arm of federal and state programs, at the same time they reflect local needs and priorities.

Each LDD operates under the direction of a local board of directors designed to represent government, business, labor and professional groups. A majority of those serving on LDD boards are locally elected officials such as mayors and county commissioners or supervisors.

3. Additional local government assessments or fees for services will only be paid if the local governments feel that they are getting adequate services from their districts.

Given these assumptions, it is clear that those development districts that are perceived as primarily federal grantsmanship centers for their local areas will face a difficult task in replacing lost federal funding. In fact, some districts may go out of existence if additional substantial cuts are made in federal support programs. Those that go first will be those that are still considered merely conduits of federal funds.

Other districts have completely changed focus and have become largely operating agencies for a single program. In becoming almost exclusively agencies for the aging, computer centers, enterprise development centers or job training organizations, these districts have dropped many of the traditional technical assistance and planning functions of regional councils. While in the short run this may lead to a larger or more secure revenue base, this course risks losing the interest of local and state elected officials and reduces the flexibility of the organization to change with the inevitable changes in public policy priorities either on the local, state or national level.

Most districts have changed by diversifying their funding bases and purposes by providing local services for fees, seeking additional local and state contributions and administering or planning other federal programs. Districts located in states with strong gubernatorial and legislative support for regional councils will probably continue to have strong support regardless of any additional federal domestic budget cuts. Districts with a long and established history of providing local services and administering regional programs will also fare better.

While some development districts may go out of existence in the next few years and others will be forced to drop down to skeletal staffs, most will survive and many will flourish. A few will be transformed into new organizations. Others may merge with neighboring jurisdictions. Most districts will probably also find that their state and local governments rely on them even more as they move more and more into directly planning and administering projects and programs. In the Appalachian area the average district today has a bigger budget and larger staff than before the federal budget cuts.

In sum, those who forecast the demise of the development districts are likely to be proved wrong. Although the future will have its share of problems, for most districts it still looks bright.

Countryside near Russell Springs, Kentucky.

Kenneth Murray

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P.O Box 2939
3465 Norman Bridge Road
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GEORGIA
GOVERNOR JOE FRANK HARRIS

Paul D. Radford
Executive Assistant to the Commissioner
40 Marietta Street, N.W.
8th Floor
Atlanta, Georgia 30303

KENTUCKY
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Office of the Governor
Capitol Building
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GOVERNOR HARRY R. HUGHES

Hans F. Mayer
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MISSISSIPPI
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162 Washington Avenue
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NORTH CAROLINA
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116 West Jones Street
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GOVERNOR RICHARD F. CELESTE

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State Office Tower
30 East Broad Street, 25th Floor
Columbus, Ohio 43216-0413

PENNSYLVANIA
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Room 433, Forum Building
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SOUTH CAROLINA
GOVERNOR RICHARD W. RILEY

Donald R. Hinson
Senior Executive Assistant to Governor Riley
State House
P.O.Box 11450
Columbia, South Carolina 29211

TENNESSEE
GOVERNOR LAMAR ALEXANDER

Michael E. McGuire
Assistant Commissioner
Community Development Division
Rachel Jackson State Office Building
320 Sixth Avenue, North
Nashville, Tennessee 37219-5308

VIRGINIA
GOVERNOR GERALD L. BALILES

Stewart H. Gamage
Director
Virginia Liaison Office
444 North Capitol Street, Suite 246
Washington, D.C. 20001

WEST VIRGINIA
GOVERNOR ARCH A. MOORE, JR.

Katharine Bullard Becker
Administrative Assistant for Federal Relations
Office of the Governor
State Capitol
Charleston, West Virginia 25305

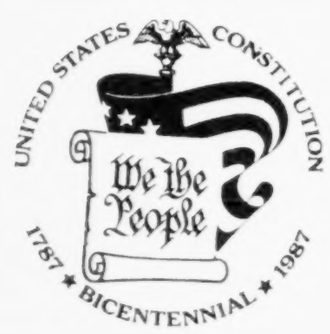
Appalachian Quilt Contest for Bicentennial of Constitution

As a part of the bicentennial celebration of the Constitution of the United States, the Appalachian Regional Commission is sponsoring a quilt competition. The contest will be supervised by Jim Gentry, director of the Southern Highland Handicraft Guild of Asheville, North Carolina, and is open to all Appalachians. Interested individuals and groups are urged to plan now to make a quilt on a theme related to the U.S. Constitution during the bicentennial years 1986 through 1989.

Each Appalachian state will conduct a separate competition. State winners, to be selected in June 1987, will be sent to Asheville with their quilts in July of 1987. The grand prize winner will be selected there. An exhibition of the winning quilts will be on display at the Folk Art Center on the Blue Ridge Parkway in Asheville in late 1987 and will tour the Appalachian Region in 1988-89.

Winners will be given cash awards as well as travel expenses to Asheville.

Further details of the competition will be available later in each state. It is currently planned that entrants must file by November 1, 1986, with their individual states, notice that they intend to participate. The quilts themselves must be ready by May or June 1987.



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A SUMMARY OF APPALACHIAN PROJECTS APPROVED AS OF SEPTEMBER 30, 1985

	Corridor System	*Access Roads*
APPALACHIAN DEVELOPMENT HIGHWAYS – *Mileage*		
Construction Completed or under Construction	1,982.2	820.8
Engineering and Right-of-Way in Progress	582.3	47.0

	Number	*Amount (in millions)*
HEALTH		
Construction and Equipment	810	$214.6
Operating Projects	798	206.3
Planning Grants	12	14.1
CHILD DEVELOPMENT	477	$169.1
EDUCATION		
Vocational Education	1,237	$373.7
Higher Education	241	62.4
Libraries	174	21.3
NDEA Grants to School Systems	76	7.1
Educational Television	27	7.6
Other	87	17.7
LAND TREATMENT AND EROSION CONTROL CONTRACTS	20	$18.3
MINE AREA RECLAMATION PROJECTS	89	$49.8
COMMUNITY DEVELOPMENT		
Water and Sewer	1,550	$369.4
Airports	156	18.9
Enterprise Development	6	1.9
Industrial Site Development	205	53.7
Recreation	149	23.6
Other	128	29.7
HOUSING PROGRAMS		
State Housing Agencies	59	$ 37.8
Project-Planning (Loans)	120	4.3
Site and Off-Site Development	309	24.6
State Technical Assistance	167	9.1
Other	46	8.5

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Appalachia

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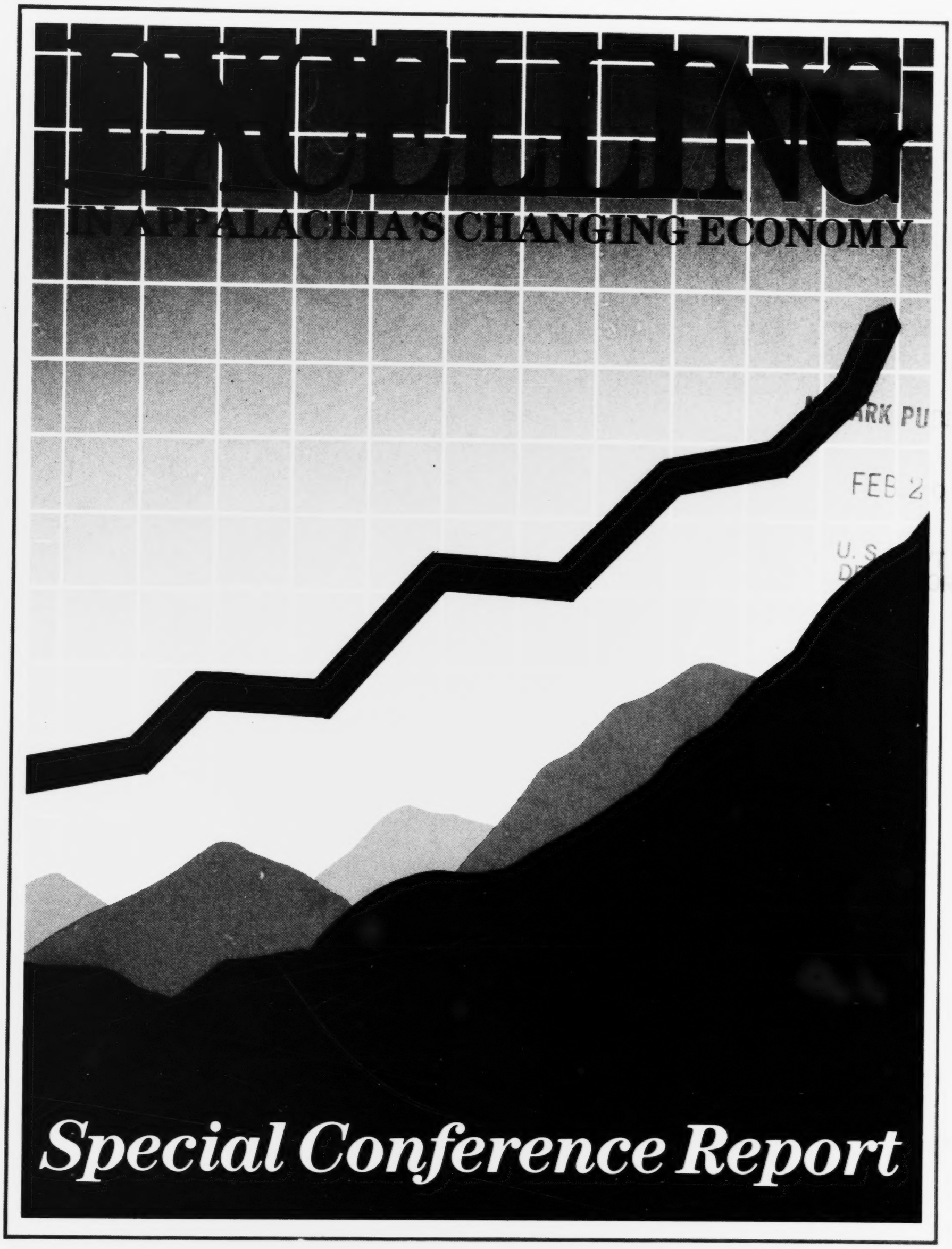

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Appalachia

A JOURNAL DEVOTED TO THE SPECIAL PROBLEMS OF REGIONAL DEVELOPMENT

APPALACHIAN REGIONAL COMMISSION

FRANCIS E. MORAVITZ
Executive Director

ELISE F. KENDRICK
Editor

DIANE BOWKER
Assistant Editor

RICHARD SWARTZ
Graphics

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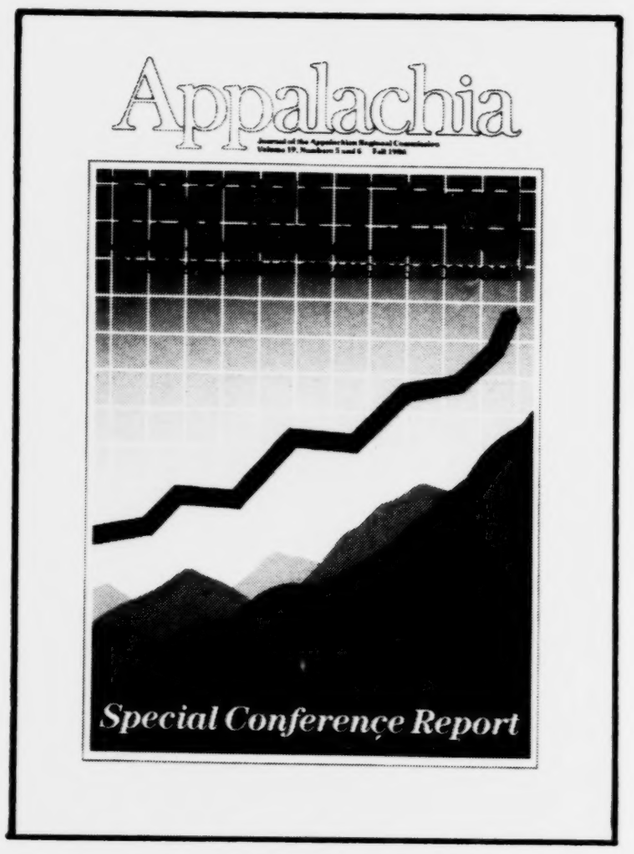
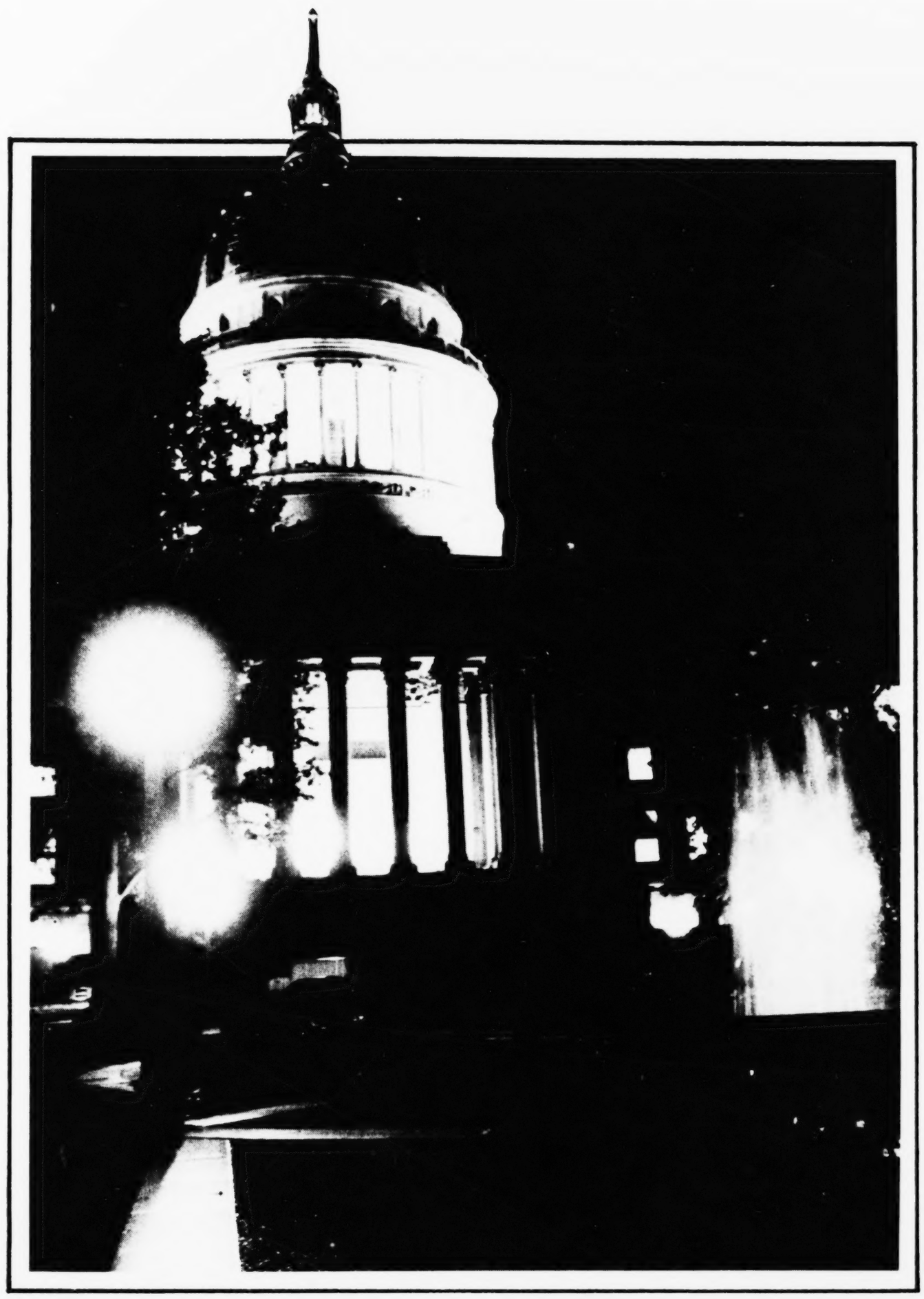


ARC Workshop Fosters Small Business Creation and Expansion



Kenneth Murray

The West Virginia Capitol.

The Appalachian Regional Commission's 1986 regionwide conference, held September 23-25 in Charleston, West Virginia, was a workshop built on the theme "Excelling in Appalachia's Changing Economy."

Aimed at stimulating new jobs in the Appalachian economy, especially through the creation and expansion of small businesses, the workshop attracted 200 participants from throughout the 13 Appalachian states, including state and local officials and community and business leaders.

Governor Arch A. Moore, Jr., of West Virginia, the workshop host, led off the meeting with a welcoming address, the main points of which are reproduced on pages 2-3. ARC Federal Co-Chairman Winifred A. Pizzano opened the plenary session with her overview of future directions for the Region and ARC (see pages 4-5). Panel discussions were conducted by experts on every phase of new business development, from financing to technology transfer.

ARC developed plans for the workshop in response to a persistent dichotomy in the Appalachian economy: since the early 1980s, most of Appalachian Georgia and the Carolinas have prospered, but most parts of central Appalachia, which are heavily dependent on manufacturing and mining, have lagged behind.

During the same period, however, Appalachia has developed a more diversified economy than ever before, and a strong base for further development, in the form of modern highways, schools and other community facilities and institutions, is firmly in place.

The workshop is one in a continuing series of ARC activities aimed at boosting the Region's economy through concentration on fields with special potential for job creation. One of the most promising of these is small business, which accounts for most of the nation's new jobs.

The workshop provided participants with a look at new developments in such areas as capital opportunities and sources for business start-ups and expansions; market development strategies for entrepreneurs and emerging and growth industries; untapped markets for old and new products to stimulate growth in small businesses; and the importance of technological innovation and technology transfer to the revitalization of the Region's economy and business opportunities.

The workshop was followed by a meeting of the Commission on Thursday, September 25.

Governor Moore Discusses Past and Present Changes in the Region and in West Virginia

Katharine Becker (right), West Virginia alternate, introduces West Virginia Governor Arch A. Moore, Jr. (second from right). Also seated at table: (left to right) ARC Executive Director Francis E. Moravitz and ARC Alternate Federal Co-Chairman Jacqueline L. Phillips.

"I can understand that a westerner, looking at the Appalachian Regional Commission, might very well suggest that there is no justifiable reason for the federal government to support or subsidize or enhance the opportunity of a region to catch up. But, you know, when I look west, I see the water projects, and I see the great advantages and subsidies that exist in many forms of government, all of which I have tolerated during my public service, thinking that they did in some way contribute significantly to the economies and certainly to the well-being of the people of that part of the United States.

When I look into the Midwest, I can see people who say there is no reason on God's green earth we can support the Appalachian Regional Commission because it doesn't do a thing for our part of the country, and yet I very religiously believe in subsidizing the farm community.

If I go into the Northeast, it is not too much different. People say, 'Why should we continue to subsidize the least productive, least economically viable or least accessible area of the country when it does not enhance the Northeast?' And yet in every subsidy program that has ever been put before the Congress for public housing to meet the needs of the unfortunate in the cities of the eastern seaboard, you have found a measure of my political philosophy, which is simply, if the people themselves cannot do it, then government must have a response. I believe that is really the beginning of the ARC program.

And I felt ARC was a strong prototype for what should occur across the country. It was a most direct service link from the federal government to the end result—producing a project, producing a program, producing a particular philosophy and bringing it on stream as fast as we possibly could without the intervention of so much of the bureaucracy that exists in the federal establishment today.

Addressing the challenges that face all of us in this changing region of Appalachia today, it's appropriate to note the role of the Commission. I happen to believe that it's continuing to pave the way economically for recovery in Appalachia. Someone might say, 'After these billions of dollars, why in the world should recovery not just simply be out here for all of us to see?'

I think more than anything else we should look at the reverse side of the question. Instead of having a glass half full, you've got a half empty glass. You must look at the magnitude of the differences that existed in the geography of the Appalachian Region and in its economy compared with the rest of the country. There was a much greater distance to go, and a good portion of that distance was traveled in times of high inflationary cost. Whereas building a highway required $750,000 per mile in the beginning of the Appalachian Development Highway System, the Commission now builds roads in the state of West Virginia at a cost of $18 million per mile. That gives you some idea of what we are trying to catch up

All photos on pages 2-35 by Kenneth Murray.

with and the distance we had to travel just to get where we are now.

Changes Spurred by ARC

I need not go through the litany of services that have been offered by this organization and this experiment in government. I'm still an advocate of it. even though I have strong conservative tendencies as to what government should be doing and what it should not be doing. But I am a part of the region of the country that has not participated in the growth and potential that exists in the nation as a whole. And as such, I'm quite jealous of the opportunity to bring us back into the mainstream of this great thing called the American experience. The Commission did provide us that opportunity. It gave us the extra boost; it provided us the seed money in many instances to go to our own constituency when we were so reluctant to talk about taxation or tax increases, to use that seed money as an enticement to say, well, yes, we can do it but we've got to put something of ourselves in it. The Commission also attacked a certain mentality you found throughout the Region, the 'sit-still-itis' that so often occupied a great number of communities and areas. ARC was, very frankly, the single most important economic development tool.

There is no question where we stand as far as the country is concerned. We are in that portion of the geography that is so strategically located between the Midwest and the East. We find ourselves with a terrain unlike that which exists either on our eastern shelf or on our western shelf. I used to tell the governors to the east and to the west, if I had your type of terrain, I could pave your entire state with what I have to spend on the severe terrain that exists in a great portion of Appalachia.

And if you come from the western portion of New York and follow this terrain all the way down into Mississippi and Alabama, you find the same problems, the same challenges exist. ARC funds enabled us to do an awful lot on highways and corridors, and we are moving rapidly to complete them.

As a matter of fact, the middle of next week we'll open another 15 miles of Corridor G, which extends down into southwestern West Virginia and then into Kentucky through the most inaccessible portion of our state.

"I'm quite jealous of the opportunity to bring us back into the mainstream of the American experience."

ARC's financial contribution to this Region has just been beyond all accounts. But it also allowed us to plan; it allowed us to put the initiative of leadership where it logically belongs, and to me that's here at the desk. You could plan, you knew what your state needed and you knew that by the utilization of those dollars and the cost-benefit ratio you could reasonably see after a period of time what was going to occur.

West Virginia's Role in Changes

We've made other changes of our own. We completely redid our tax structure to reestablish us competitively. We had simply priced ourselves out of the market in West Virginia. We had got to the point where we used these mountains as our shield against job creation, and we found that we were simply trailing the nation in growth and in job creation.

We have now established a new philosophy. We want the jobs and not the taxation. We feel quite strongly that if the jobs are there, we are going to get our revenues through the normal channels that the ordinary family contributes to through consumer sales and income taxes.

We also made a couple of other decisions about our future. We decided that we are still an energy state. And we want to diversify. We want so very much to bring into the economic base this high tech we talk about. We are being successful in that with AT&T's location of a regional computer center here, which we know is eventually going to mean 2,000 to 3,000 jobs in our capital city.

I suggested to the legislature that we had to do one of two things. We either had to mine coal, put it in coal cars or barges and ship it and move into the competitive market, because without question—and I mean no offense to Virginia or Kentucky or Ohio or Pennsylvania or any other coal-producing state—we have whatever quality of coal is needed in the world. You tell us what the chemical composition is; we have it. We don't have to blend it, mix it or do anything with it; it's under the bowels of these great mountains. We made up our mind that we are going to mine it and ship it, put it in the American marketplace or the international marketplace competitively.

Failing that, we were going to go into the business ourselves. We were going to begin the construction of power generation facilities in which we would mine coal, burn our own coal in the state of West Virginia and ship the electric power out into the nation as a whole. This has caught the fascination of a number of states. Twenty-one states have asked to see what we are doing. And we are close to realizing the construction of the first state of West Virginia-owned public energy facility that will be managed by the private sector. The power generated from that will enable us to move literally millions of tons into the generating process, creating jobs all the way back down the line. We are preparing for the future."

After Smokestack Chasing

ARC Federal Co-Chairman Winifred A. Pizzano.

ARC Federal Co-Chairman Winifred A. Pizzano opened the plenary session with a welcome to the participants, whom she called leaders in the post-smokestack-chasing era of economic development.

Past achievements by the Region's leaders, she said, "by nearly every measure, social or economic, [have made] the quality of life in Appalachia better today than it was. Pockets of poverty remain in our Region, as they do in most other parts of the country, and we continue to look for effective ways to help those people. But taken as a whole, it can now be said that the Appalachian Region has a capacity to compete—a capacity few would have dreamed possible just two decades ago. Clearly, your leadership has paid off."

The federal co-chairman told the conference participants that the Region's future success depended on their ability to meet the challenge of change. "Openness to new ideas," she went on to say, "requires you to constantly challenge the assumptions on which your current efforts are based. It requires you to avoid the trap of doing things a certain way because that is the way you have always done them. Openness to new ideas requires—above all else—a commitment to flexibility in:

- programs, policies and regulations if you are in government
- procedures and prerequisites if you are in banking
- production and processes if you are in business and
- preparation if you are a worker looking to the future."

She stressed the importance of local leadership in this era of continuous change because it keeps everyone focused on the future. "Change is frightening, and adapting to change can be exhausting. At the first sign that things are settling down, many people are ready to settle down too. That desire to stop where you are and get comfortable is a universal tendency. But it is one that real leaders must resist."

Pizzano told the conference participants that people in their communities would expect them to assess changes in the local environment, advocate new ways of responding to change and push the community to rise to the challenges in the years ahead. When the long-range objective is to respond to changes that affect an area's economy, said the federal co-chairman, local leaders must keep short-term goals from getting in the way of achieving long-range objectives.

The federal co-chairman urged that ARC examine Commission programs and priorities with an eye toward the long-range goal of increasing the flexibility of Appalachia's economy and its ability to respond to the many changes that lie ahead. "Smokestack chasing, the effort made by states and communities to recruit companies from other states and communities," she said, "is essentially a zero-sum game nationally and has yielded far less than the expected benefits locally. I hope we will move away from funding traditional projects designed to support smokestack-chasing strategies."

She turned next to the critical necessity of vocational education and industrial training and retraining programs. "The cost to our communities of chronically high dropout rates and widespread adult illiteracy is higher than the cost of addressing these problems," she pointed out. "ARC has been in the forefront of the effort to develop innovative programs to reduce dropout rates and illiteracy. I would like us to get more involved in partnerships and pilot projects designed to develop job training programs that really do the job for today's workers and for tomorrow's."

Turning to the process of technology transfer, the federal co-chairman said

that no state can pass up the benefits that can be realized when government, business, community colleges and leading universities work together to move promising new technologies into the marketplace in commercially viable ways. It is apparent today that technological breakthroughs are the key to saving many major industries on which much of the Appalachian Region depends for jobs.

Pizzano said that Pennsylvania, Tennessee and North Carolina have moved ahead in technology transfer and cited specific examples in Appalachia, such as "the thriving area around the Tennessee Technology Corridor outside Knoxville, Tennessee. The clear beneficiaries of the most technologically advanced rug and carpet mills in northern Georgia are the area's workers and their families. In fiscal year 1987, I intend to do everything I can to see that the Commission supports technology transfer programs," she promised.

Another way to boost the Region's economy is through market expansion, she continued. "There are vast untapped markets for Appalachian products, not only in other parts of the world but right here in this country," she pointed out. "Increasing the volume of our exports is important, but so too is increasing diversity in products and markets. Export development means more than trade missions or regional and overseas marketing offices."

Federal Co-Chairman Pizzano concluded, "Building a competitive edge for our companies, communities, states and Region is what 'Excelling in Appalachia's Changing Economy' means to me. It's a goal I am confident we can achieve, and I think the record bears me out."

The panel moderator, Dr. Monroe Newman, economist on the ARC staff, then introduced each of the panelists and said that they were going to discuss the rapid social and economic changes occurring in the nation and how these were leading to changes in economic development activities at the state and local levels.

Excerpts from Panelists' Speeches

Ann Clurman
Senior Vice President
Yankelovich, Skelly and White/Clancy, Shulman, Inc.

"When we are planning for the future, social changes in the United States must be considered along with economic changes, technological changes, demographic changes and all of the other signals we use to understand what is making people tick today. We need to look at the past to understand the future, and a convenient place to start is the period after World War II when the factories that had geared up for war production changed to the production of consumer goods.

Government, business and the public were then fairly united in their goals and assumed that economic growth would continue on a personal and national level. We believed in upward mobility and signaled our success through the material possessions we owned. We were conformists, believed in self denial, prided ourselves on living a life with a sense of order and looked to authority to tell us how to live our lives and what to do. Many people believed that the struggle for survival was over because 70 percent of the American population had attained the American dream of becoming middle class.

Lester Thurow, the economist, called this period a time of effortless superiority. Many people growing up in the 1950s believed they could take economic well-being for granted. We did not get rid of our love of material possessions in this country, but, because we took it for granted, we put our economic agenda on the back burner. Many of us changed our goal of upward mobility to a goal of individual fulfillment. We became a society committed to breadth of experience instead of depth of experience.

The moral focus that we as Americans have always had shifted in the 1960s and 1970s from a private moral focus on living the good clean life to a public moral focus where we wanted to eliminate inequities in opportunity and fix everything. We assumed that we *could* fix everything because we assumed we would have unlimited economic growth and unlimited economic strength.

Ann Clurman.

We moved from a phase where government, business and the public were in sync to a phase where they were out of sync. The public found a lot of problems to fix but not necessarily solutions; instead, it applied a lot of pressure to our institutions. Business became the villain. Government became the watchdog, the funding source and the implementor of the social agenda. These new social values were characteristic not only of New York and California but were supported eventually by 80 percent of the public.

These values managed to withstand the shocks of oil price increases and the recession of the mid seventies, but could not withstand the economic turmoil of the late seventies and early eighties. What was different?

The difference was that the public began to question the affordability of the social agenda during the economic turmoil of the late seventies and early eighties. At the same time people began to see that there were some real penalties attached to the new lifestyles. The response in the early 1980s was, for Americans, an uncharacteristic one of stress, anxiety and confusion. Consumers began to demand more efficiency from government and business. Workers made some minor wage concessions. Management reassessed its product lines, management style, community relations and employee benefits. Government began to reassess the scope of its role.

What has emerged in the mid 1980s is a blending of the economic and social agendas with a new realism that no longer assumes we can have or do it all. We are no longer the assumptive society of the 1950s, and we are not returning to that era. We are taking a lot of legacies with us from the 1960s and 1970s. As we fine-tune a new agenda, some new characteristics are emerging.

There is tempered optimism. It is neither the optimism of the 40s, 50s, 60s or early 70s, nor is it the pessimism of the late 70s and early 80s. The public realizes that some things are not doable and not desirable, but we are not going to die if we have to make some trade offs.

There is more of an emphasis on individual effort and less of an emphasis on governmental and institutional solutions to every problem. There is a strong dose of self reliance reemerging that we think will affect the marketplace for a long time.

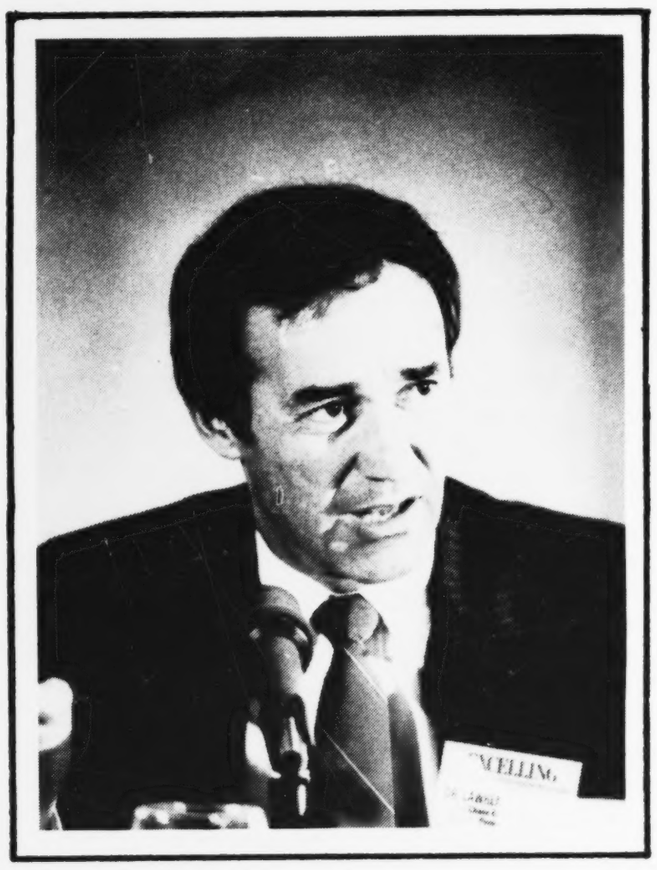
There is a renewed spirit of competition and will to win. In 1980 business said it was losing to Japan. By 1984 over 80 percent of the chief executive officers in one piece of research we did said that they were operating in either stable or declining industries, but they were still out to win and were not throwing in the towel as they had done four years earlier. Consumers also feel a sense of power in the marketplace because they believe they know how it works. They are willing to go around, under or over the system if the way is legal and moral, which means the underground economy should continue to thrive.

There is an increased commitment to cost effectiveness. For business and the consumer, it is not a search for the cheapest, easiest solution but a search for the best balance between the objective and the cost. The three precious commodities of time, money and effort are used in learning how to make trade offs. There is the desire to remain open and flexible to better ways. At the same time we are beginning to see a counterthrust to being the best pragmatist, consumer and strategist. People are beginning to feel an emptiness or emotional vacuum and say there must be more to life. They are beginning to search for a center or moral underpinning to gather around.

There is renewed appreciation for age and experience. It is okay to be over 30. Tradition, heritage and expertise are back as good things.

There is a large need to affiliate with a community, a region or a country, and there is an increase in the sense of kinship. People are searching for people with similar objectives, goals and beliefs. The personal isolation and lack of commitment of the 1970s has changed."

Lawrence Chimerine
Chairman and Chief Economist
Chase Econometrics



Lawrence Chimerine.

"Before we can look at the macroeconomic setting in which you are making economic development decisions, we need to look back a little bit. Since late 1982 or early 1983 we have been in the midst of an economic recovery. We started this recovery from a very low level because of the serious recession in the late 1970s, and in my judgment, we have only recovered part of the way. In addition, the speed at which we are recovering has slowed dramatically in the last couple of years, and the recovery has been uneven for different geographic areas and industries.

Short-term and long-term problems are inhibiting a full economic recovery. The federal budget deficit is a short-term problem that has had a severe negative effect on the economy's interest rates and the value of the dollar abroad. The deficit is also becoming a long-term problem.

Another long-term problem is the large amount of debt accumulated at all levels—state, local, business and consumer—that has to be serviced from

our incomes and profits, which reduces our ability to make new spending commitments and finance new expenditures. Corporations are beginning to say that new construction and equipment purchases are declining because they are using a larger share of their current profit to service the debts they have already accumulated.

There is a very serious competitive problem in world markets, which began ten years ago before the dollar became overvalued. Many years ago American manufacturing and agriculture had the best technology, the most modern equipment in our factories and the best mass production techniques. All that has changed. Most other countries have the same expertise as America, they have just built their factories and they have a labor cost advantage that is absolutely enormous.

Our manufacturing and agriculture industries have been hit the hardest by the increased globalization of the economy coupled with poor U.S. productivity trends. We cannot believe that high tech and computer jobs will replace all the lost manufacturing jobs. We now have a slump in the computer industry because the manufacturing sector is one of the large clients for the computer industry.

Another long-term problem is the loss of relatively high-paying manufacturing jobs in this country while we create new service jobs at the minimum wage. In the long term, purchasing power and living standards will be held down unless we reverse the process.

There are no easy or quick-fix answers to our problems, but there are some things that would give us a better environment to compete. I think the federal government has to do a lot more to provide the framework to permit better competitiveness and productivity growth. Reduction of the federal deficit would be a start. There should be more emphasis on quality education programs. We need a stronger federal trade policy that would promote fair trade. Tax reform that encourages capital formation in the long run is also needed."

Marianne K. Clarke
Research Associate
Center for Policy Research and Analysis of the National Governors' Association

"The National Governors' Association has completed a year-long study of state economic development policies and programs. Your plenary session title, "After Smokestack Chasing," is extremely appropriate because our survey clearly shows that it is no longer accurate to equate state economic development with industrial recruitment activities.

There is a noticeable change in how states seek to attract business investment to their state. Rather than provide financial incentives and subsidies to individual firms, states are emphasizing investments in education, upgrading the skills of the local workforce, improving transportation systems and investing in public services and facilities. These are long-term approaches to economic development.

Industrial recruitment is now viewed as one part of a comprehensive broad policy which includes expanding existing businesses, encouraging new business formation and providing adjustment assistance to those individuals and communities experiencing economic dislocation. Perhaps the most significant change in economic development policy over the last ten years is the growing emphasis on existing businesses.

Marianne K. Clarke.

States see an expanding existing industry as a source of new jobs. They are providing assistance to companies to help them become more competitive. They are establishing a variety of programs to encourage firms to adjust to changing world markets, adopt new technologies, find new uses for their products and develop new products through research and development. Technical and management assistance has been provided to small businesses, and state financing programs have been used to provide capital for modernization and expansion.

States are also strengthening their existing firms by helping them find new markets for local products. Governor Moore told us this morning that West Virginia is going out and creating markets for coal. The agricultural states are helping their agricultural industries to increase overseas exports. Alabama was one of the first states to define the financing needs of exporting firms and to set up programs to link export firms to working capital, insurance and export credit.

States have become active in providing start-up and early financing for new businesses. New York, Ohio and a number of other states are permitting their state pension funds to be invested in targeted private venture capital partnerships. Other states act as brokers, bringing their in-state entrepreneurs together with in-state and out-of-state venture capital firms. Ten states are operating entrepreneurial assistance programs that provide support services such as testing and evaluating markets and general business management advice.

Other states are setting up programs to teach entrepreneurial skills. Ohio has set aside Job Training Partnership Act monies to fund pilot entrepreneurial training projects for dislocated workers.

After the classroom training, the participants are provided with follow-up services, such as regular seminars, access to technological expertise from consultants and on-going support groups for people who start their own business.

Forty states have set up programs to develop new technology initiatives, including investing in applied research and development and providing financing for new product development to encourage new technology transfer.

One of the most common components of the state technology development programs is the establishment of a center or centers where the state serves as a catalyst to bring private industry and universities together to promote research and development. Pennsylvania's Ben Franklin Partnership Program was one of the first in operation. It has set up four technology centers with a consortium of the private sector, labor, research universities and other institutions of higher education. Each center conducts research and development, education and training and provides entrepreneurial assistance.

An equally important component of state technology development initiatives is transferring technology from technology centers to existing industries. Maryland operates technology extension offices, based on the idea of the agricultural extension program, in conjunction with their engineering research center at the University of Maryland. These offices are staffed by experienced industrial engineers who provide companies with technical assistance and help in solving problems.

The survey also revealed that more emphasis is being placed on the importance of a skilled workforce as technology-related industries demand a skilled workforce for future growth. Twenty states are undertaking education initiatives in support of economic development. Education reform has been a major part of the economic development strategy in Tennessee and Florida.

Customized job training programs are in operation in 49 states. The programs are used to upgrade the skills of workers in existing firms and to train workers to use new equipment or perform new procedures in new firms.

Almost half of the states indicated that the decline of manufacturing industries was the single largest problem they faced, and they have devised many ways to meet this structural change in the economy. They have promoted voluntary guidelines for notifying the state if a plant is to close, established rapid response teams to coordinate delivery services if a plant closes and targeted assistance to communities with plants that are closing.

Several states have set up programs to identify firms which may be in trouble. The state has helped the firm find a new owner or assisted the employees in obtaining ownership. The state has also provided financing to keep the company going while restructuring occurs.

This wide diversity of programs shows there is ample room for different approaches to economic development. This is a time for states to innovate, experiment, watch what seems to be working in other states and assess carefully what can be done to achieve economic development."

Douglas C. Henton
Senior Policy Analyst
SRI International

"Two years ago, SRI decided to focus on economic changes at the regional level because it thought things were happening below the macro level that needed to be explored and it knew that the states were experimenting with ways to meet the structural changes in the economy.

SRI asked, 'Why are some regions doing well, and why are others doing less well? Why did manufacturing

Ann Anderson, ARC director of news and public affairs (foreground), gives members of the press information packets; Phyllis Decker and Peggy Newman, ARC staff members (background), register workshop participants.

Douglas C. Henton.

decline in the Midwest? Why was Texas on top of the economic heap a short time ago, and why is it now on the bottom? Why are the resource-based industries in the West having trouble?' There are several reasons.

One reason is that there has been a change in what we think of as comparative advantage. Comparative advantage in the past stemmed from fixed factors such as location, natural resources, climate and other natural endowments. Now comparative advantage is shaped by an area as it enhances its competitiveness through adopting new technologies, new product mixes, diversification and finding new markets.

We are going through a period of creative destruction where old industries are destroyed and new industries are created. Growth and decline occur at the same time. The turbulence we see now is similar to that of the 1890s through the 1920s, when the railroads and the automobile were developed.

Consumers' tastes are also changing. The mass markets are breaking up, and there is more room for diversity and different products in the marketplace. To meet this new demand, there must be flexibility in production, the ability to produce smaller units and the ability to produce reliable high quality products.

American companies must produce better-quality products more cheaply to become competitive with foreign companies. The basic ingredients we need to do this are a qualified and skilled workforce, access to technology and advanced production processes and risk capital.

It is in the first two areas that the states will have the greatest impact because they control what happens to education, which will affect the quality of training provided to each state's workforce. The state can also see that technology is applied in our industries. One of the biggest mistakes that have been made is thinking that high tech is the solution when it is the application of technology that is the solution.

There are many areas in the United States that have the opportunity for growth once they take the basic ingredients and apply them to economic development. What we need to do now is help states build on their strengths and apply them to opportunities for growth."

Plenary session panelists (left to right) Douglas Henton, Ann Clurman, Lawrence Chimerine and Marianne Clarke listen to questions from the audience.

Panel I

Risky Business I: Entering Capital Markets for the First Time

Jack Hawke.

How can small businesses acquire the seed capital they need to get started? Are there untapped sources they might approach? What preparations do they need to make before contacting possible lenders?

Answers to questions like these were sought at the first of the concurrent panel sessions. Jack Hawke, ARC alternate for Governor James G. Martin of North Carolina, was moderator of the session.

How the System Works

Introducing the subject and defining exactly what the chief problems in the area are was William Duncan, president of MACED (Mountain Association for Community Economic Development), an eastern Kentucky organization aimed at creating new jobs through development of small businesses, new industries and better management of natural resources.

By far the majority (80 percent) of small U.S. businesses are what might be called job-substitution enterprises, Duncan pointed out. Such a business might be a dry-cleaning firm, for example, that essentially serves as a job for the owner and perhaps some members of his family. These business owners don't intend to create firms that will expand into much larger businesses. Therefore they are unlikely to create large numbers of additional jobs.

"It is the growth-oriented small businesses that lead to most new jobs."

It is the other 20 percent of new small businesses, the growth-oriented portion, that lead to most economic development, particularly to new jobs. These are businesses whose owners are eager to grow as fast as they can. How can economic development specialists help them get the capital they need? About 80 percent of the start-up or seed capital for most small businesses comes from family and friends, but in the case of growth-oriented businesses, a higher percentage comes from outside sources.

William Duncan.

Recently, Duncan said, states have tried to provide some seed capital for these growth-oriented businesses. For a long time they have offered incentive financing (low-interest loans to attract businesses to particular localities), but now they are beginning both to invest their own funds in start-up financing and to stimulate commercial loans and venture capital loans.

Commercial banks do not generally make many start-up loans, especially not small rural banks. In Appalachian states, probably the average share of

John Weiss.

"The three most important factors in scrutinizing businesses seeking loans are management, management, management."

commercial bank deposits used for commercial loans is about 6 percent, compared with 26 percent nationally. There are a number of ways states can help increase the availability of commercial credit: they can encourage banks and investors to use programs such as loan loss reserve funds, community development corporations and other state-chartered loan institutions. Even a few additional commercial loans per year would help in the long run.

States can also encourage investment in new businesses, as West Virginia has done with a new law that essentially gives tax credit for 50 percent of the investment made in a venture capital company. Venture capital is important because the high-risk, high-return businesses it typically invests in have the potential for more economic growth than the low-risk, low-return loans typical of commercial bank lending.

What Venture Capital Looks For

The next speaker, John Weiss, managing director of the Baltimore venture capital firm Aretê Ventures, Inc., spoke specifically of venture capital's role in the financing of business start-ups. He pointed out that it is the source of start-up financing for only a very small percentage of businesses. Only about 2 percent of Aretê's funds go for seed capital, that is, the preliminary financing before actual setting up of business, a step that they estimate is five to ten years away from any return on their investment.

Weiss said that his firm looks at perhaps 1,000 business plans a year for businesses that are seeking venture capital loans. Of these, 900 are rejected immediately as not meeting the company's criteria. About 35 receive hard scrutiny, and eventually Aretê invests in perhaps 10. Of these, only 1 or 2 percent are successful, but the average rate of return on these successful ventures is around 23 percent.

In scrutinizing businesses seeking loans, Weiss talked of the "MMMPM" formula. The three most important factors the firm takes into account are management, management, management. Next come product and money. In weighing the problems facing ventures, their proposed solutions and their management, he says, "We rate them on a scale of 0 to 3. If any of these factors rates a 0, forget the deal."

Larry Snow.

"In approaching a venture capital firm, be conservative. Get a motorcycle, and take the prospective lender to McDonald's."

Aretê plays an active role in the companies it invests in. It follows its borrowers' progress carefully and continually offers advice. Since particularly in rural settings role models for entrepreneurs are scarce, it is extremely important that these new businessmen have a support group to turn to.

Weiss' final word was that few of the businesses Aretê invests in could be called high tech businesses. Aretê is much more likely to turn to entrepreneurs who use high technology, but are not themselves creators of high tech products.

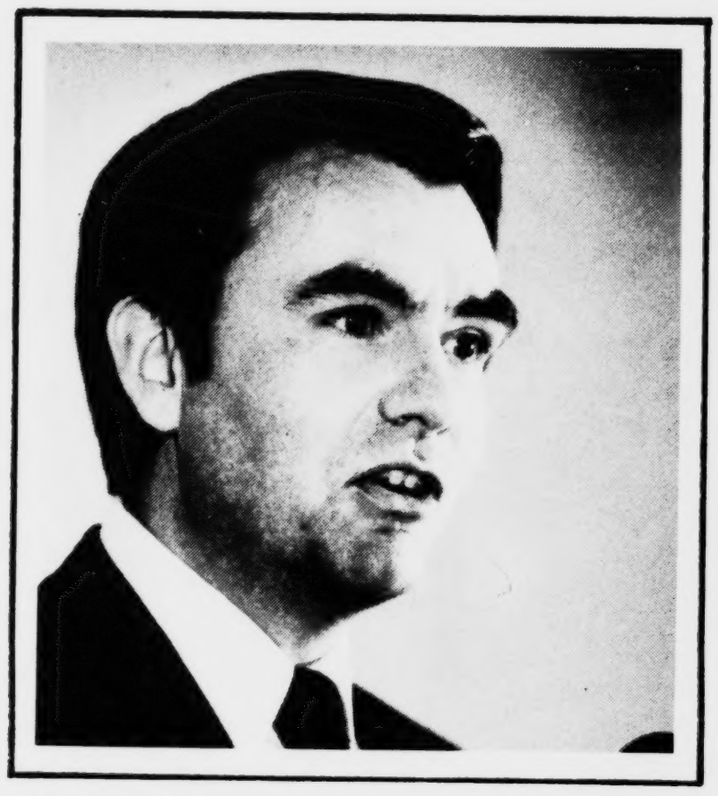
How One Business Got Financing

Looking at the problem of obtaining financing from the point of view of the borrower was Larry Snow, who operates a business out of a Pennsylvania incubator. Liberty Electronics plans and sells electronic systems for modern aircraft.

This firm needed a "clean room" atmosphere to make its electronic systems. From the creation of a business plan through establishment in a Northwest Pennsylvania incubator and the marketing stages, the firm received help from the entire community—CEOs, SBIC, the Northwest Pennsylvania Regional Planning and Development Commission (a local development district), state-funded training organizations and a redevelopment authority. Snow believes that this communitywide help was responsible for his firm's obtaining financing amounting to $2.4 million and feels that similar help is essential to the development of other small businesses like his. The unproven track record of new businesses is a big problem, according to him, both from a borrowing and a marketing point of view.

Snow's firm was funded on January 6, began operations on February 17 and produced its first product by April 1. It began its marketing efforts the day it opened, with advice from the LDD. To date it has bid on $36 million worth of business. Of the $6 million out of this $36 million on which contracts have been awarded, Liberty Electronics has won approximately $650,000, or over 10 percent. It includes among its customers Gould, Inc. (a defense industry), McDonnell Douglas, General Dynamics, Sperry, Lockheed and the U.S. Navy. The goal for the business in the first year was $2.6 million; at the time of the workshop it had not come close to that figure. However, if it should win the same percentage of the $30 million worth of business that remains to be awarded, it would more than meet its goal.

Discussing attempts to attract venture capital, in light of the experience of his firm, Snow suggested, "In approaching a venture capital firm, be conservative. Get a motorcycle, and take the prospective lender to McDonald's."



Robert Michael Duncan.

What Banks Can Do

One of the key sources of funds for new entrepreneurs in rural areas is the local bank. Representing the views of officials of these banks was Robert Michael Duncan, president and CEO of the Inez (Kentucky) Deposit Bank, who described the changing banking climate today.

The trend today, he said, is toward regional interstate banking. All Appalachian states have some form of this. Of the present 14,000 commercial banks in the nation, he expects that only 5,000-7,000 will remain after this transitional period of centralization of the system. But small, rural, family-owned banks, like most of Kentucky's 333 banks, will probably still be around.

As the country moves further toward a deregulation of the banking system, it may become easier for start-up entrepreneurs to borrow from commercial banks, he said, echoing William Duncan's remarks. Lending of seed money is not permitted under current regulations, except for equipment or buildings. Bankers today cannot take equity positions in businesses. The small rural banks in Appalachia tend to be conservative and have limited management skills, but they are seriously interested in their local communities and eager to help.

He described two scenarios, one which would lead to the banker's refusing financial assistance and one which might have a different outcome. In the first scenario, a man the banker is distantly acquainted with comes in with a "great idea" for a new product and announces that he is quitting his job to pursue it. The banker immediately thinks of the man's family and who can support it, of his mortgage and car payments, and that anyway "he's not that smart—it won't work." But in the second scenario, a man comes in with a concise but carefully drafted business plan, a step-by-step listing of the capital he and his family are prepared to commit to the venture and a statement of his management experience to date. The banker will probably suggest some possible investors, pass on to him some useful local and state contacts and may even find some money that the bank can invest.

"Small rural banks in Appalachia are seriously interested in their local communities and eager to help."

Duncan suggested that new entrepreneurs could find bankers more useful as sources of advice than of loans. Bankers can also be valuable sources of community support; with their help, the community can be led to understand the difficulties of starting new ventures and the possible advantages to the community.

Patrick Graney.

Where States Are Heading

Patrick Graney, financial strategist for the governor's Office of Community and Industrial Development in West Virginia, invited participants to consider states' possible roles in new ventures. Describing what West Virginia has done to improve its investment climate, he said that the governor's office, seeking to help the state get more jobs, is trying to improve access to the capital that is vital for these jobs, to improve the business environment generally and to improve state programs. "West Virginia," he said, "wants to create a climate where capital funds opportunity." He said that 70 percent of the projects the state works with are small businesses with fewer than 50 employees.

New legislation has created an incentive program for investment by allowing corporations that invest in venture capital projects a 50 percent credit against state income tax. The state has a job development corporation that can lend money to new businesses; it is hoped that within the next few years a state bank will be established that can fund worthwhile projects.

Recognizing that the majority of new jobs come from the expansion of existing businesses, the state is making available to entrepreneurs many mechanisms for solving problems other than finding capital. It is helping businesses analyze the four Ps that are the essential ingredients of success: product, pricing, promotion and performance.

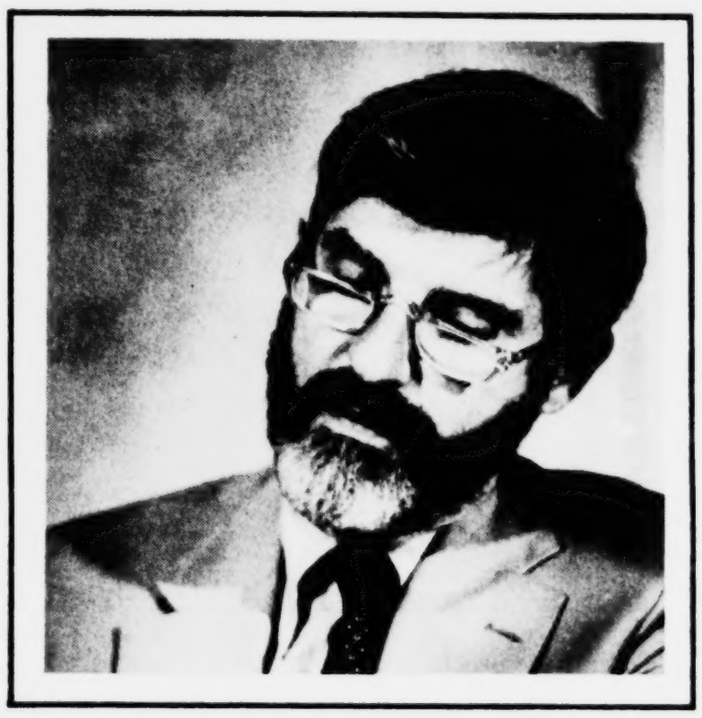
"West Virginia wants to create a climate where capital funds opportunity."

Panel II

Developing New Markets for Growth Industries

Larry M. Hayes.

Dr. Paul Reynolds.



Daniel J. Fennell.

"Opportunities abound" best sums up the messages presented by five panelists in "Developing New Markets for Growth Industries," a panel moderated by Larry M. Hayes, who serves Governor Martha Layne Collins as Kentucky's secretary of the executive cabinet, budget director and executive director of the Office for Policy and Management and is the governor's ARC alternate.

Following Hayes' welcoming introductory remarks, the panel discussion commenced with Dr. Paul D. Reynolds' report on his ground-breaking study of new Pennsylvania firms, which is currently being put into final form and which he has every confidence is pertinent to many areas of Appalachia. Reynolds is a professor of sociology at the University of Minnesota and visiting professor of management at the Wharton School of Business of the University of Pennsylvania.

Once Reynolds had outlined the characteristics of new firms and their place in the regional economy, Daniel J. Fennell, director of policy, planning and development for the Council for Labor and Industry in Philadelphia, picked up the discussion with an examination of the patterns and needs of small businesses throughout their lifetimes: startup, growth, maturity and decline.

Robert S. Rovin, president of Allen, Rovin and Associates of Washington, D.C., and Robert W. Rhoton, manager of the export-trade program for the South Carolina Jobs-Economic Development Authority, then addressed the subject of developing new markets, with Rovin describing the federal government as a market untapped by too many small businesses. Both export trade and the federal government offer rich opportunities for firms properly prepared to do business with these special-demand markets, and both present risks to ill-prepared businesses, the two agreed.

The panel concluded with Madeleine B. Hemmings, first president of the West Virginia Roundtable, who talked on how states can support small business growth.

Business Birthrate Booming

Reynolds' study of new firm development in Pennsylvania, funded by the Pennsylvania Department of Commerce and the Appalachian Regional Commission, points up how little is really known about the inception of small business, including how many are actually conceived. Even in Pennsylvania with its comparatively sophisticated business-study community, and even following Reynolds' rather exhaustive survey, it is impossible, according to Reynolds, to pinpoint whether the rate of creation of new businesses in Pennsylvania is 4 percent, 8 percent, or as much as or more than 12 percent a year, of the 220,000-some businesses currently operating in the state. In other words, there may be 8,000 new business start-ups a year, or more than 20,000 a year.

For Reynolds and other business-watchers this lack of data is of particular interest since new firm creation is one of the best and one of the earliest indicators of changes in the economic structure.

"New firms with high growth make the major contributions to the state in terms of jobs, sales and exports."

Robert S. Rovin.

Robert W. Rhoton.

Madeleine B. Hemmings.

Of more interest to *Appalachia* readers, though, is what *is* known. In the survey by Reynolds of new firms emerging within the last six years in Pennsylvania, while 80 percent of new business startups concentrated on local markets, they provided only 69 percent of new jobs. The 20 percent of new businesses that were national or regional exporters created 31 percent of new jobs, and accounted for 45 percent of total sales, not to mention an understandably high 96 percent of all exports. In the survey, national exporters are defined as firms with $100,000 or more in annual sales *outside Pennsylvania and the states bordering it* (including Virginia); regional exporters are firms with similar sales *outside Pennsylvania but inside the bordering states* (including Virginia).

For those who recognize the social contributions afforded by locally based and concentrated firms, but who question the contributions made by firms that are regional or national exporters, these numbers prove not only that the latter firms make significant contributions locally, but that they make contributions to a degree far greater than their relative numbers. Communities and states, it would then seem, should be fostering not only the creation of export-oriented firms in their communities but should also be encouraging locally oriented firms to consider whether they might have the potential to tap export markets, regional or national.

As Reynolds continued his study, he also determined that new firms tend to be born in numbers highly correlated with the numbers of firms already existing in a given area. That is to say, where you find many mature firms, you are most likely to find many new firms, and where there are many new firms, it is likely there will soon be many more. This finding was based on the Pennsylvania survey, which clearly showed that the majority of new firms were clustered in a minority of the state's development districts.

Reynolds also found that new firms that were regional or national exporters tended to cluster in areas with a high percentage of adults with college educations or better, a high percentage of adults between the ages of 25 and 44, higher per capita incomes and lower unemployment rates. That is, "it turns out that the unemployment rate is negatively correlated with the birth of firms in export-potential industries." Areas with high unemployment rates tended instead to have new firms oriented toward a local market.

"The most highly valued forms of assistance are related to management skill development and financial support."

Growth Patterns of New Firms. New firms may all be new, but they do not all grow and develop the same way, Reynolds discovered. There are dramatic differences in both their initial (first year) size and rate of increase. The key information needed to predict (or explain) differences in new firm contributions is their developmental pattern. They have been classified into four types:

- high start, high growth: first-year sales $250,000 or more; average annual growth of $100,000 or more
- low start, high growth: first-year sales less than $250,000; average annual growth of $100,000 or more
- high start, low growth: first-year sales $250,000 or more; average annual growth less than $100,000
- low start, low growth: first-year sales less than $250,000; average annual growth less than $100,000.

Two-thirds of all new firms tend to be in the low-start, low-growth category; approximately one in eight (13 percent) in the high-start, high-growth category, and about one in ten in either the high-start, low-growth or low-start, high-growth categories.

The low-start, low-growth firms make up more than half the firms in all industries. High-growth firms emerge in almost all industries, but are most prevalent in manufacturing, distributive service and construction. New firms with high growth make the major contributions to the state in terms of jobs, sales and exports; in fact, they are responsible for roughly two-thirds of the sales, 90 percent of the exports and two-thirds of the jobs.

New firms that are regional or national exporters are much more likely to report high growth than the typical new firm, as the graph below indicates. Reynolds says that the new firms with low-start and high-growth rates are of particular interest; they make up 27 percent of all firms with a national export emphasis. They may be major candidates for government assistance to enhance their development and, in turn, contributions to jobs and gross sales.

One caution: it is not possible to determine the causality of the relationship. High growth may lead new firms to export, or exporting may lead new firms to higher growth. But the relationship is unquestionable—high growth and an export orientation are associated.

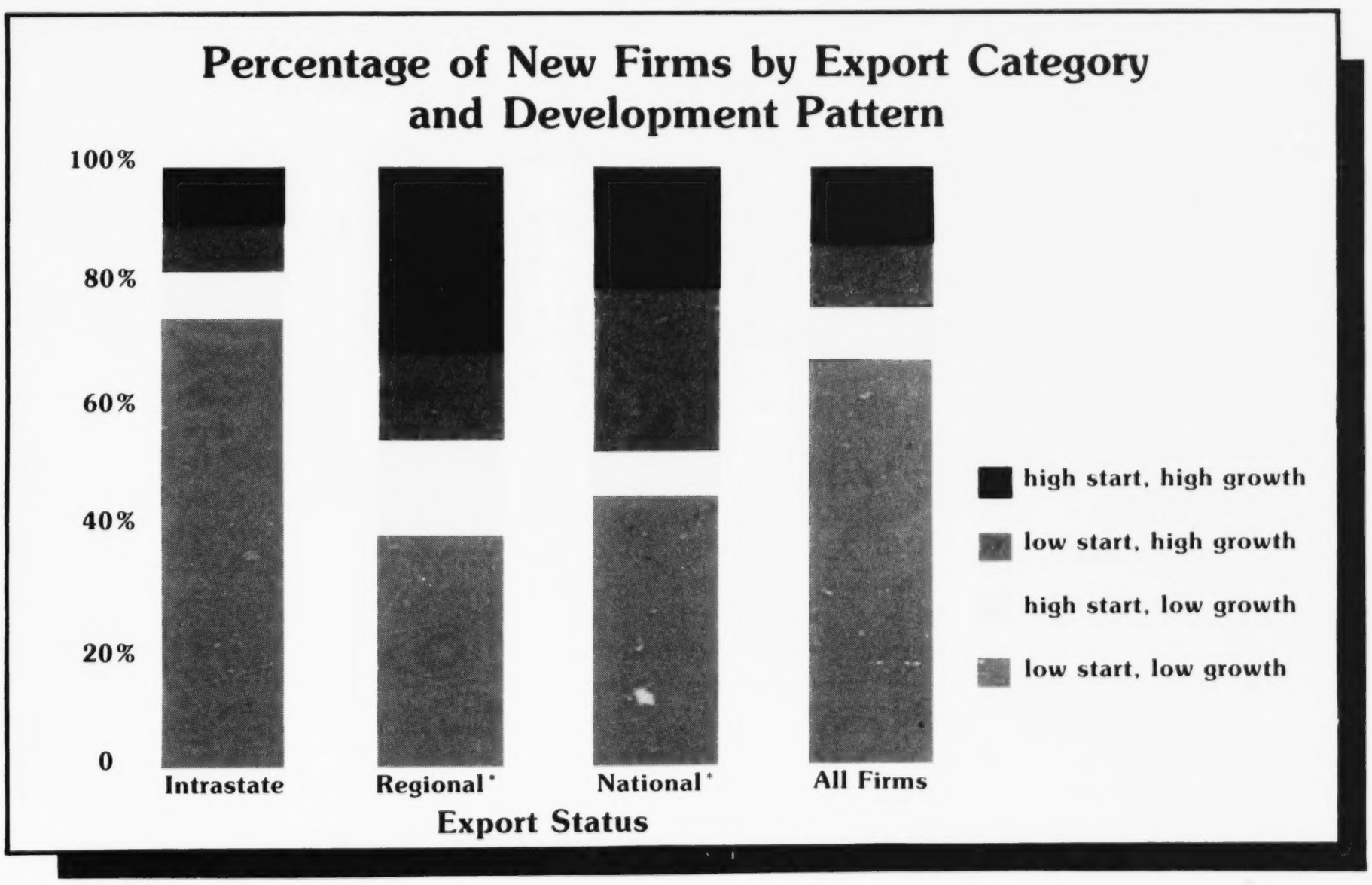
Policy Implications. Reynolds drew a number of policy implications from this analysis:

- It is clear that export-oriented new firms make major contributions to the jobs, sales and exports of a local development district, state or region. This reflects both the net contributions (from the exports) and also their tendency to be the faster-growing new firms. Limited government resources may have the greatest payoff for economic growth if directed toward export-oriented new firms.
- Export-oriented new firms are found in most industries, but concentrated in manufacturing, distributive services and business services. There may be sectors within these industries with even greater concentrations if they can be identified.
- Government assistance to individual firms is always a sensitive activity. It may be avoided by emphasizing programs directed toward an industry or subindustry.
- The growth trajectory of a new firm is evident within 18 months of start-up (the first sale). Government assistance may be restricted to the first two years of a new firm's life, when the growth pattern will become apparent. Conversely, government assistance may be provided only after the first two years, when the growth pattern has become apparent.
- The most highly valued forms of assistance are related to management skill development and financial support.
- It may be very expensive and difficult to change the major features of a regional or district population that lead to the creation of new export-oriented firms. Enhancing growth in regions with high concentration and high birth rates of exporting new firms may be more effective and efficient.

Conditioning for Competition

All panelists agreed that for businesses to address new markets, they must be constitutionally sound and equipped both financially and managerially to be able to take on and succeed in addressing the challenges presented in a new marketplace.

Daniel Fennell, whose Council for Labor and Industry works with firms in all phases of growth—start-up, growth, maturity and decline—stressed the importance of recognizing what phase a



*See definition on p. 14.

firm is in and then adapting to assure the firm is in the right phase to take advantage of new markets. For example, Fennell explained, a start-up firm may be seeking its maturity, striving through growth to do so, while a firm in decline may also be seeking its mature phase. However, in the case of the declining firm the road back to maturity may lie less in growth and more in streamlining and adapting procedures to, in effect, turn back the clock to a point of "maturity." Fennell points out that government assistance to assist firms to be mature competitors for new markets may need to take the form of being everything from a supplier of seed capital to a management consultant. He underscored that it is critically important that seed money be accompanied by intensive management assistance that can help assure that the resources will germinate in a firm well acclimated for success.

Fennell supported Reynolds' conclusions that business success is fostered by start-up in an area already hosting successful businesses. The successful development of a new company, he said, frequently depends on the existence of other companies around it in compatible lines of business. He also suggested that it is important that state and local governments help to establish programs that will provide incentive capital to growth industries.

Selling to the World's Biggest Spender: Our Own Uncle Sam

For any business person that sees his tax dollars running to the "fed" like lemmings to the sea, or reads of the government's buying millions of dollars worth of her company's product, the world's biggest consumer, the U.S. government, appears to be an attractive market. Rovin and his firm have built their business by assisting other businesses to do business with the government. Rovin agrees that Uncle Sam does indeed make a great customer, if your company is in a position to meet the special stresses involved.

The federal government has set up a number of programs specifically designed to help small business get a larger share of the federal market, and small business is beginning to benefit from these new programs. However, Rovin cautions that doing business with the federal government involves four major hurdles:

- rigid adherence to government specifications and deadlines
- compliance with government regulations and bookkeeping demands
- openness to federal audits and other investigations
- cumbersome bidding processes and considerable paperwork.

Selling to the government, says Rovin, is not like simply opening a new territory—it's really a different way of doing business. It is also not a skill the mastery of which lends itself to a one-day seminar or self-education. While having the government as a customer can appear quite promising, the market is fraught with pitfalls. An example is that if you deliver a product that does not meet specifications, the government can buy it at whatever price it is available, and then charge the difference to you.

Rovin concluded that only companies that are on a sound financial and managerial footing and can afford to shoulder the additional costs that doing business with the government may occasion should enter the market. He urged that firms such as his own, experts at the Small Business Administration and other sources of guidance should be tapped by anyone looking to add Uncle Sam to his or her list of clients.

"Successful development of a new company frequently depends on the existence of other companies around it in compatible lines of business."

Foreign Markets for Domestic Producers

While others decry the scourge of foreign competition and raise fists toward distant shores, Robert Rhoton is playing the if-you-can't-beat-them, join-them game and is looking across the horizon for new markets for firms in South Carolina. He has had success.

Rhoton explains that American producers consider foreign markets not only geographically foreign, but conceptually foreign as well. His state has pledged itself to a long-range program that will educate domestic producers to the unperceived opportunities for growth they have once they open themselves to buyers in other countries.

Rhoton underscored that doing business abroad makes additional demands on companies, that it isn't right for everyone. However, he and the export trade program he conducts for the state of South Carolina are determined to help companies who are in a position to take advantage of foreign markets, to do so as successfully as possible. To this end, they have developed a personalized approach tailored to each individual company they work with—an approach which is very time-consuming.

Like Rovin, Rhoton pointed out that opening this new market takes more expertise than a one-day seminar or self-education is likely to afford. "A day-long export seminar," he said, "gives a novice just enough information to hang himself." He too cautioned that unless a company knows what it is doing, trying to compete in a foreign market may scuttle the company's ship back home. But with the proper preparation, Rhoton's program is designed to give astounding results from foreign trade.

"Selling to the government is not like simply opening a new territory."

(Left to right) Larry Hayes, Robert S. Rovin, Robert W. Rhoton, Madeleine B. Hemmings.

One of Rhoton's clients, a scrap metal dealer, has tripled his business by opening the Japanese market to his company. And Rhoton foresees that another client, a horsemeat processor, may make even more dramatic gains once *he* enters the export market.

Rhoton underscored that the South Carolina program is an intensive, one-on-one project that performs many of the tasks of opening a market for the small business person who has no time for such prospective pursuits. These tasks may include identifying additional sources of financing, completing paperwork and researching markets. But he concluded the effort is well worth while, since for every one million dollars in foreign sales, from 25 to 30 jobs are created back home, which is 25 to 50 percent more jobs than are created by the same dollar volume in domestic sales.

"A daylong export seminar gives a novice just enough information to hang himself."

Improving State Business Environments

The panel was concluded with a presentation by Madeleine Hemmings on the efforts of the West Virginia Roundtable. This is an organization of over 100 leading West Virginia business leaders that accommodates the West Virginia business climate to the needs of small business and promotes the health of businesses and their ability to compete in any market. In its attempts to improve the economic environment in the state, it has pushed for legislative and regulatory changes that will help business. It has supported new and generous tax credits for investors in venture capital funds. It is establishing a privately funded venture capital fund that will both invest in new businesses and offer them technical assistance. It has arranged a meeting between state legislators and leading educators to stress how essential a strong educational system is to "supply the skills the next generation's businesses will need."

Panel III

Everything You Always Wanted to Know about Technology Transfer but Didn't Know What to Ask

Much of the world's progress in manufacturing, mining, agriculture, transportation and communications has hinged on the development and commercialization of suitable technology. The invention of the electric light bulb spawned a whole new industry devoted to making our nighttimes less dark. Experiments with semiconductive materials brought us the transistor and a myriad of other devices to control major processes, or bring us entertainment from faraway places or make air travel safer and less expensive. Hybrid seed breeding has increased crop yields fourfold, and then tenfold, producing enough food to feed our citizens and many others. All around, in almost every facet of life, we are caught up in a swirl of change brought about by the products of research and investigation. The products of the "new technology" are very much with us.

Substantial resources are devoted to the quest for new ways of doing things. Expenditures for basic research in the United States, for instance, outstrip the combined expenditures of Germany, France, Japan and Great Britain. And yet the United States and the Region seem to be losing their competitive edge in the world's markets. The need for innovation to increase productivity and create new processes and products seems evident. Amidst an abundance of ideas the bringing of these findings to the marketplace has met with serious obstacles:

- The technology is no longer simple (although good simple ideas are still in demand) and is being produced at an increasing rate.
- The technology must be applied across the board to existing as well as emerging industries if all are to benefit.
- Many of those creating the technology are bound by the rules and purposes of their sponsoring institutions, which may be at considerable cross-purposes with those who would commercialize a product.

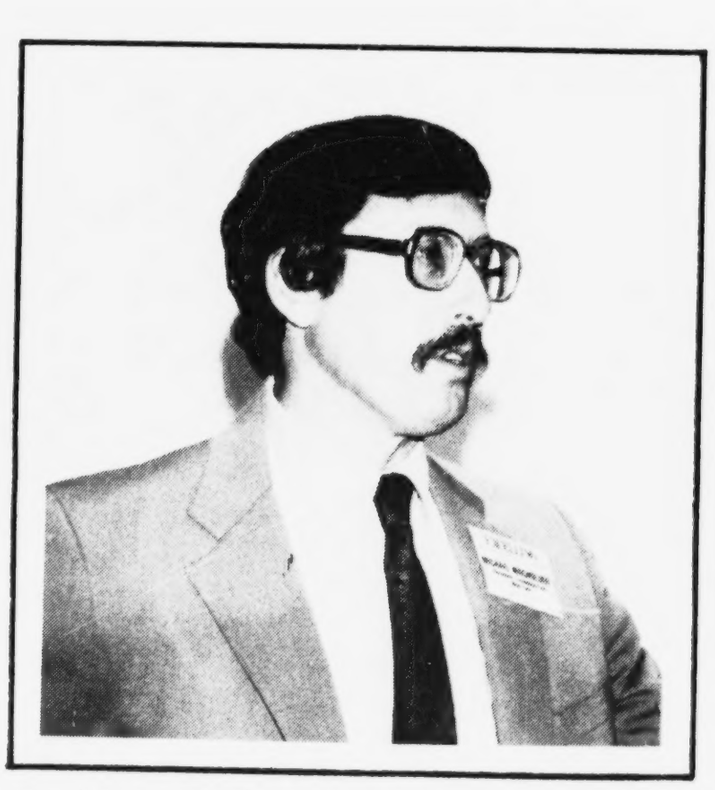
The panel on technology transfer addressed this last problem by considering ways in which educational institutions and industry could get together to share their attempts to innovate. The panel moderator, Dr. Marnie Shaul, assistant director of Ohio's Department of Development and ARC alternate for Governor Richard Celeste, noted that institutions such as the Appalachian Regional Commission might have a substantial part to play in bringing industry and educational institutions together.

Pennsylvania's Triple Threat (Education, State Agencies, Private Sector) Supports Small Business

Michael Bolton, chief presenter of the panel and executive director of the North East Tier Advanced Technology Program at Lehigh University, outlined Pennsylvania's approach. Lehigh University at Bethlehem was one of four educational institutions selected four years ago to participate in the state's Ben Franklin Partnership program—a consortium of colleges, state agencies and private sector companies committed to sharing technology and to small-

Dr. Marnie Shaul.

Michael Bolton.



Dr. Michael Wacholder.

to-medium-sized business building. The aim was to make Pennsylvania companies more competitive both in national and world markets and to preserve existing jobs. The key to getting industry involvement was through issuance by each of the technology centers of "challenge grants." Starting with $250,000 grants in 1983 to each of the centers, the state support has increased this fiscal year to $26.45 million. This money has been matched (the "challenge" part of the grant) by more than $108 million in private sector funds.

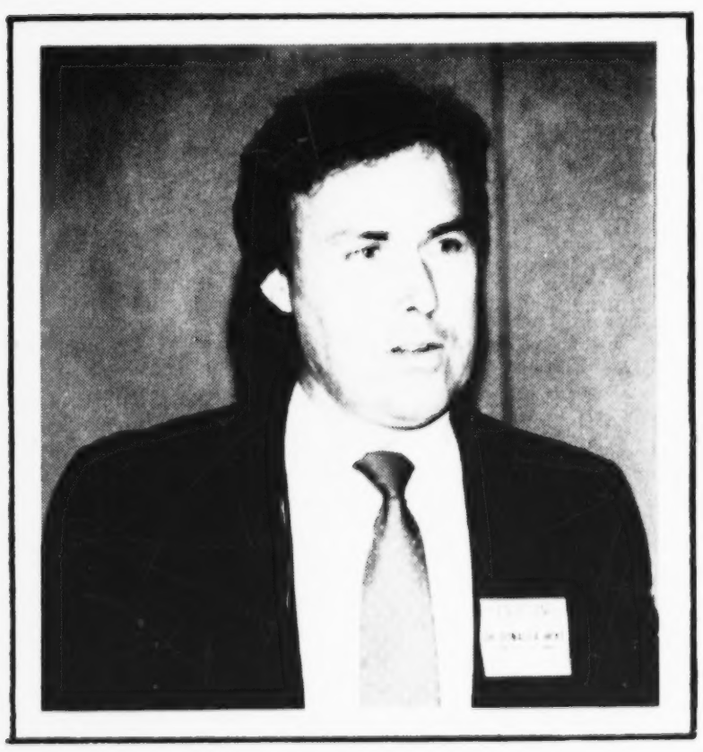
Bolton stated that these grants are being used for three specific purposes: joint industry/education research and development projects leading to new products or processes, education and training programs to meet specific industry needs and entrepreneurial assistance with emphasis on incubator facility development and seed/venture capital formation. Currently about 70 percent of their resources are being used for research and development grants, but Bolton indicated that the focus is clearly shifting to education and training programs. Part of the strategy for technology development is the use of special strengths found in each of the educational institutions. In Lehigh University's case the emphasis has been on computer-aided design and manufacturing (CAD/CAM), microelectronics, materials development and biotechnology.

Bolton concluded his comments by indicating that both large and small companies had benefited from these efforts. The process of transferring ideas into productive processes or products was originally expected to be relatively slow, but this has not been the case. The demand for grants has exceeded their availability by a sizable margin. Some 225 good proposals were received this year; only 135 were funded. Overall he estimated that 3,000 jobs had been retained or created, 91 new firms had come into existence with the help of the program, 261 new products were under development and the $21.3 million in state funds had generated $64 million in private sector and other supporting funds. Bolton quoted a recent study by MIT professor David Birch which makes a strong pitch for entrepreneur support. Professor Birch found, citing the New England growth experience, that one of the best indicators of a strong regional growing economy is a high start-up rate *and also* a high failure rate among new companies. Bolton strongly supported assistance to entrepreneurship and left the audience to ponder the question of whether or not the new alliance between government and universities was prepared also to finance and write off failures with public monies.

"The process of transferring ideas into productive processes or products was expected to be slow, but this has not been the case."

New York Incubator: Starting Business Off Right

Four other panelists gave presentations on specific examples of technology transfer in action. Dr. Michael Wacholder from Rensselaer Polytechnic Institute in Troy, New York, focused on the incubating aspects of their program. He called an incubator facility "a house for business" and emphasized the need for entrepreneurial support in order "to make a business out of an idea." He stated that all new businesses generally started under considerable adversity—hence the need for an incubator where some of the routine management chores can be consolidated. Wacholder emphasized the need for a catalytic agent, one who can take an idea and turn it into a business—hence Rensselaer's emphasis on entrepreneurial



Don Hicks.

Dr. Henry Clarks.

Louis Blair.

support. "One of the most important things we can do is to take the potential businessman and place him in a room with some already operating small businessmen and go over his business plan with a fine-tooth comb," he said. "Here we can help him with raising capital by identifying potential sources and help in the development of a workable marketing plan."

Rensselaer has actually developed a two-stage housing for such efforts. In addition to sponsoring an incubator facility adjacent to the school technology center, it has also developed a technology park on the outskirts of town. Graduates from the incubator have an immediate entree into the technology industrial park, where they become independent and free-standing operators. However, because of close ties with Rensselaer, they still have immediate access to upcoming research results, thus keeping them on the cutting edge of new developments. Wacholder emphasized a theme, heard quite often in this session, that it was important to recognize available resources (companies) and to use them in developing new ideas. A unique aspect of the Rensselaer program is that it was started without any governmental funding and continues to operate well without it.

Education Has Its Own Mission

From his research on technology transfer and development in several industries, Don Hicks of the University of Texas at Dallas warned against the philosophy that "advanced technology is a saviour to all." Based on his experience in Texas, there are signs to the contrary. Looking at the metal-working industry, he found that the basic technology for machine tool control was available in the 1950s. Some portions of the industry, principally in aerospace, adopted this technology in the 1960s, but it wasn't until the 1970s that the industry as a whole embraced it. His major point: this innovation was brought about by market forces rather than any political intervention. He also noted that a change in technology may be only one response an industry makes to market signals. Sometimes a change in technology may result in regional relocation of a whole industry (the Sunbelt effect), or it may entail a change in labor conditions and representation (union vs. nonunion).

Professor Hicks also questioned the role of universities in the technology transfer process. He had investigated the origins of the high technology base in the Dallas-Fort Worth area. The third largest in the United States, it had developed without having a national class or world class educational institution within its boundaries.

"New technologies more often replace jobs than create jobs."

He found a number of significant trends which tend to go counter to the conventional wisdom. First, the embracing of high technology does not result in employment growth. Secondly, he found that most of the industries were eager to get involved in the developmental phase of turning ideas into commercial products. In essence, most of the corporate labs were doing the kind of work often done by university research, and he saw little need to duplicate or supplement this effort. He was much more comfortable with the idea that universities should conduct basic research and not dilute their basic mission of training future generations through too much interaction with the business community. Jobs come from expanded markets for existing companies and new markets for new establishments, and not necessarily as the result of new technologies. More often these technologies *replace* jobs rather than create jobs. He concluded that his university's experience suggested that industry should also take over the training/retraining function since they know their needs more closely. However, he was of the opinion that each area needs to look around and see what combination of efforts works best for them.

Bringing Space Technology Down to Earth

NASA has a special charter to use the technologies developed from the space program, according to Dr. Henry Clarks, director of the agency's Technology Utilization Division. Key words in this charter are "new, novel and developable." NASA has a three-phase program to help this occur. Foremost is the publishing of new findings through its own publications and other scientific magazines and papers. In addition, NASA has a substantial support staff that prospective users can consult to determine if NASA technology can be applied to their proposed product or service. Finally, NASA conducts a periodic review of the use of space-age technology. In some areas there has been a high rate of payoff. Solar blankets, sold in sporting goods stores for campers, was cited as an example of such an application.

A classic case of technology transfer was cited by Clarks. In this instance a man had moved from an area in the West where the water taste was judged not to be very good. His request of NASA was very simple: "Do you have some way of changing the taste of water?" NASA advisors sorted through all the work that had been done on recirculating water systems for space craft and space stations and suggested the use of an "ion-exchange" device. The man tried it and it worked, and he proceeded to market it, first as a kitchen faucet attachment, and then later in larger water conditioning units. This technology is now the basis of a $500-million business.

Clarks indicated that NASA had been given a special charge to turn its technology to helping the handicapped through bio-engineered applications. Considerable success has been achieved in this effort. From the primary research on moon rover vehicle control, a uni-stick van control has been developed so that handicapped persons can operate a vehicle with greater ease. Research related to spacecraft which can take samples on a planet's surface has led to the development of an implantable and programmable medication system for patients with the need

to take medication on a regular but sometimes changing schedule. The making of guidance systems for docking space vehicles has led to the invention of an optical reading system of speech to assist the hearing impaired. And NASA research into composite materials has resulted in the building of a lightweight wheelchair that can be used in the aisle of a commercial airplane. These high tech discoveries resulting from space technology have led to some down-to-earth solutions.

Clarks recognized, however, that the technology transfer was at times painfully slow. He mentioned the Federal Labs Act, which mandated that federal labs appoint a part-time officer to promote technology transfer. This has worked to a limited extent, but each lab has tended to set up its own rules and regulations.

"High tech discoveries resulting from space technology have led to some down-to-earth solutions."

Parenthetically, it should be noted that as this publication was being readied for press, Congress was grappling with this issue once again in the form of legislation designed to establish a process for transferring technology from federal labs to industry in a timely and efficient manner. Shortly before our final deadline, the Federal Technology Transfer Act was passed by both houses of Congress.

Making University Resources Easier to Use

The concluding panelist, Louis Blair, reported briefly on a survey he conducted for ARC relative to the involvement of institutions of higher learning in the Region in the development of new technology. While a majority of these institutions had done some work with local industries, there still existed a degree of reluctance to committing a significant amount of university resources to this kind of effort. Blair cautioned against an objective of creating a Silicon Valley in every hollow in the Region and spoke of the need to develop local industries and talents. He argued strongly for increased university involvement in technology development and transfer/conversion to commercial purposes. He cited the improved condition the schools might find themselves in in the recruitment of students if there were strong economic ties to the local community.

Particularly in Appalachia, Blair said, many small and medium firms did not have the capacity to apply new technologies rapidly. Often it is a case of just not knowing what is available in a particular manufacturing process or product. "There is not a strong cadre of independent consultants and industry association personnel to help firms obtain and utilize the new technologies," he concluded. Seven major obstacles to greater utilization of university resources were identified from the survey and are shown in the table below.

Blair suggested several solutions to the present situation. First and foremost was the need for university presidents to be actively engaged in reaching out to the business community and making school resources available. Lack of proper staffing was often cited as hindering significant participation. Curing this would require additional funding and maybe philosophical support from state legislatures (as prior speakers have indicated state backing was significant in several areas). In addition, Blair suggested a stronger role in these matters by regional agencies such as ARC. This might be implemented in part through a series of regional conferences which would bring together the industrial and academic sectors of an area. Training programs and seminars might also be started for academic personnel involved in helping technology diffusion.

The discussion period following the presentations raised two basic issues relative to technology transfer. One questioner asked, "Could the 'agricultural model' be used in this instance?" The panel responded that while there were similarities, there were also some disparities. The agricultural extension service enjoyed a strong political base from its inception. Agriculture could be viewed as a single producing industry, but this becomes more difficult in the diversity of other industrial groups. The panel closed on a final query: "What is the proper role of governments in all of this?" It was fairly evident that those represented by the panelists had taken somewhat different paths. And this may be the most appropriate answer of all.

Major Obstacles to Technology Diffusion

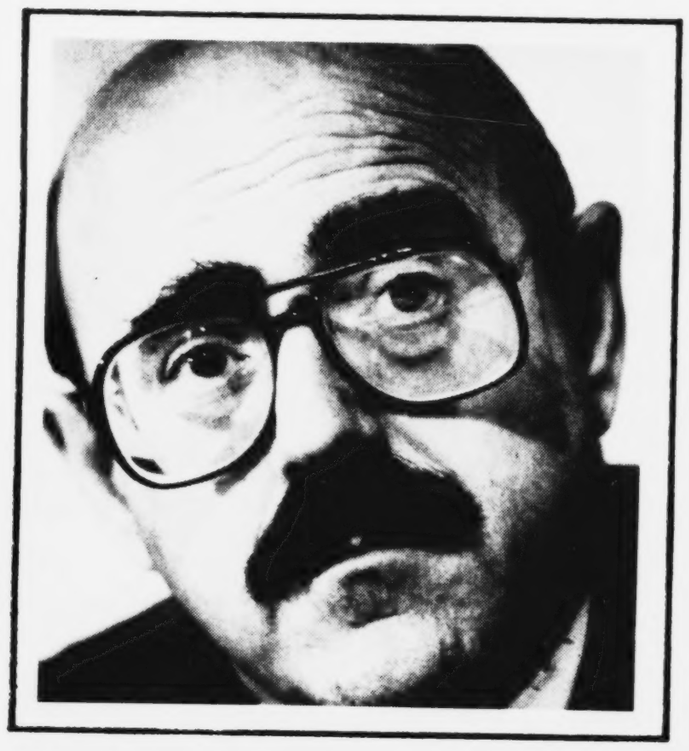
(150 Respondents)

Obstacles	Percent Rating Problem "Significant" or "Very Significant"
Lack of staff capacity	75%
Inability of firms to pay full costs of assistance	62
Lack of interest among firms and industries	53
Help needed sooner than institutions can provide it	52
Problems with patents and technology ownership	42
Lack of staff interest	32
Inappropriate role for institution	25

Source: May 1986 ARC special survey.

Panel IV

Risky Business II: Finding Big Bucks



Hans Mayer.

Financing expansion is a major concern for small businesses in Appalachia, even for those that have good growth prospects and are eager to grow as fast as they can and prepared to take the steps necessary to do so.

Businessmen who need capital tend to think of private venture capital as the most likely source. But venture capitalists, looking for investments that are likely to bring them high profits (the Apple computers of the future), actually finance very few of the nation's small businesses; in Appalachia, located far from the major centers of investment banking, the chances of any small businessman's obtaining this type of financing are reduced even further.

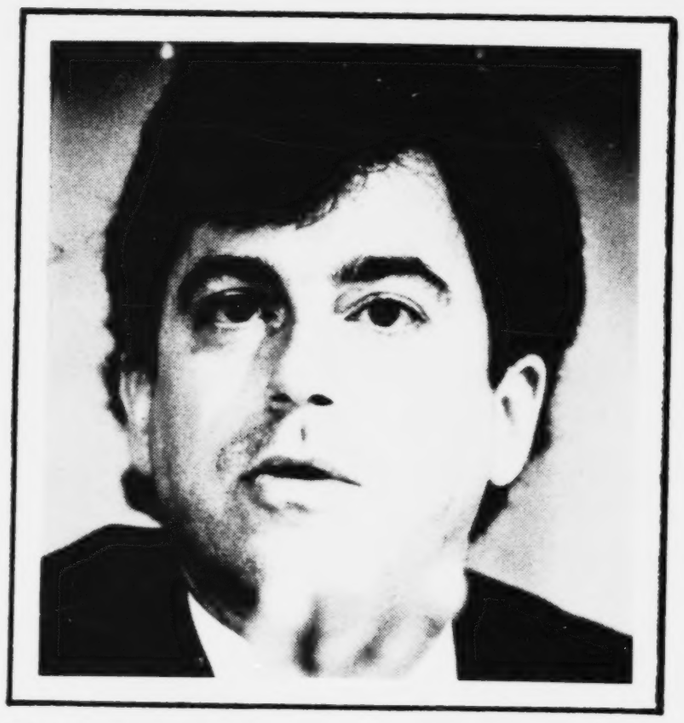
Alternatives do exist, particularly in the shape of new institutions created or supported by state and local governments to provide capital. What some of these alternatives are, and how businesses can best position themselves to take advantage of all sources to find the capital they need for expansion—these were the focal points of the workshop devoted to "finding big bucks." The moderator of the panel, Hans Mayer, who is Maryland Governor Harry R. Hughes' ARC alternate, reminded the participants early that big bucks is a relative term—what seems a small sum for a New York financier may be enormous to an Appalachian entrepreneur.

States Offer New Help

Appalachian state governments are well aware of the problems their entrepreneurs face in finding capital and are looking for new ways to help fill this gap, particularly in light of the recognized importance of small business in creating new jobs. Mark Barbash as deputy director of the Ohio Department of Development is in charge of two state divisions with responsibility for exactly this sort of help: Economic Development Financing, which houses the state's business loan programs, and Business Development, which focuses on businesses expanding or locating in the state.

Explaining what the state perspective is so that the entrepreneur can understand what sort of information he should be able to supply and what elements the state will be examining closely, Barbash said that essentially states are looking for the same good qualities that venture capitalists and bankers are looking for. He emphasized that states are, and should be, particularly wary of inflated predictions (what he termed "quick fixes") that a business makes in the way of numbers of jobs it expects to create and the like. He also said that a state must make up its mind how it will deal with the inevitable threats ("If you don't give us the money, we'll leave the state"). Some threats are real, but states quickly learn that others are hollow.

"Essentially states are looking for the same good qualities that venture capitalists and bankers are looking for."



Mark Barbash.

From an investor's point of view, whether the investor is a venture capitalist, a banker or a state, management is of key importance no matter what size the deal may be. For this reason, employee stock ownership firms, with their relative lack of expertise in management, tend to be very risky.

States are now moving toward making deals earlier in the development of firms, which means that economic development specialists are needed to be sure that all the vital ingredients are in place. Investors need to be sure that the product they are asked to support really has a market. They need to know precisely the real risks of the deal and to be sure that they can find the money that this particular investment will need. Barbash urged that businessmen "give us reality in your presentations."

States can offer help in areas other than financing that may make key differences to expanding businesses. They can help with employee training and retraining—a quality work force is vital. They can help obtain reduced rates from utilities. They can help supply financing for expensive infrastructure items like water, sewer and roads. Barbash urged that states consider offering more help to the risky deals with good potential—those that other sources of finance won't touch.

Selling Deals to Investment Bankers

Looking at the problem of financing from a more national point of view, Ronald Henry, vice president of public finance for the investment banking firm of Smith Barney, Harris Upham and Co., Inc., reminded participants that the odds run heavily against investors' making a lot of money from investments in any business: "You have to kiss a lot of frogs before you find a prince."

Ronald Henry.

"As a region, Appalachia has an identity problem."

He pointed out that investors need a framework on which to base their expectations before they invest in anything. No one should expect anyone to invest in something that won't benefit him. The most important thing, in the investor's view, is some sort of security for the investment. Investors look for stability and predictability on the debt side and an ascertainable probability of appreciation of their investments on the equity side. "Some investors have a very strong bias in favor of what is in place—the firm with a clear track record. Others prefer the speculative side of the street and expect something more in return," he said.

As Hans Mayer had mentioned earlier, Henry pointed out that size is relative in financing. "A big-ticket item in Kentucky is not the same as in Philadelphia."

With inadequate financing often the fatal flaw in business expansion, Appalachian states and communities should aim especially at helping the second-tier firms, which frequently provide more jobs in the aggregate and greater diversity to the local economy. The Fortune 1000 firms can easily raise their own money.

Another problem for investors is management. Often small businesses cannot grow into large ones with the same management teams; yet they hate to give up control of their companies. Businesses require additional expertise to permit expansion. Bankers, who do not have great leeway in making their investment decisions, look for sophistication on the part of management.

Henry concluded by saying that as a region, Appalachia has an identity problem. States and localities need to research the financing opportunities they are presenting to possible investors as carefully as marketing or recruiting deals, and then make their presentations in simple, direct terms. "The less complicated the story, the more likely it is to be successful." He suggested that they find experts to advise entrepreneurs and then make sure the latter listen attentively to what the experts say. Investment bankers are often willing to give advice on an "if come" basis, where they get paid only if they actually finance the deal. State and local governments would do well, he thought, to try to determine what basic element is missing from a financing package and then see if they can provide it.

Lending Big Bucks to Make Big Bucks

The venture capitalist's point of view was once again represented by John Weiss of the Baltimore venture capital firm Aretê. Much of what he had told the panel on "Entering Capital Markets for the First Time" (see p. 11) he repeated because it was as relevant to obtaining capital for expansion as for seed capital. He stressed again that venture capital is not primarily looking for high-tech businesses but for good business opportunities wherever they exist, like Jiffy Lube, an auto maintenance chain. These investment opportunities do not necessarily occur in brand-new companies. "Appeal to our sense of greed; we'll respond," he urged, reminding his audience that more than one prospective borrower has attached the tag "vulture capitalists" to firms like his. Venture capital will go anywhere there is an airport to do a deal, he said. It is patient money—it will wait five to ten years for a return.

He also pointed out to participants that if businesses can manage without venture capital, they should do so, since it's "the most expensive money you can buy."

John Weiss.

"Venture capital is the most expensive money you can buy."

Combining Forces—A Good Answer

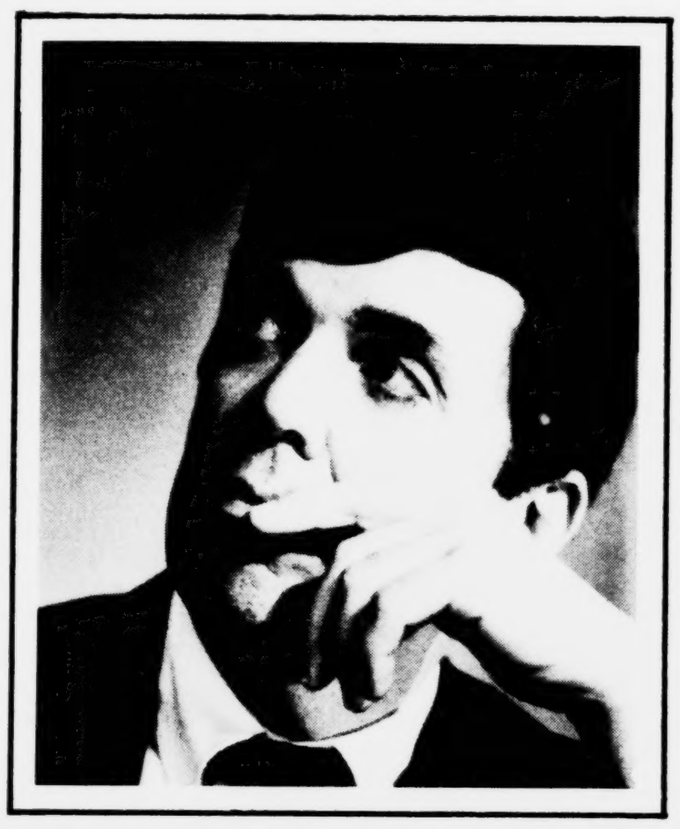
Robert Hormell, assistant director of SEDA-COG, an 11-county Pennsylvania local development district (LDD) representing a population of 625,000, described the LDD's development finance program, one facet of their enterprise development program. SEDA-COG's enterprise development program was initiated in 1981 as the cornerstone of Pennsylvania's newly focused ARC-funded Appalachian program, as it was in the other Pennsylvania development districts. It provides "one-stop shopping" for business services, including technical assistance, procurement assistance, export services and loan packaging.

SEDA-COG has developed 65 loan packages that have brought over $68 million in financing, including leveraged funds, to the district and created some 2,500 jobs. A combination of financing from different sources, federal, state, local and conventional lenders, put together under the district's leadership has made it possible to provide this large amount to local business. SEDA-COG deals have ranged in size from $18,000 to $11,000,000.

Hormell talked about the effect that multilevel financing has had on different partners in the deals. Existing firms in the area, for which SEDA-COG has developed most of its packages, feel first of all grateful for the increased assistance focused on them rather than on persuading out-of-state firms to locate in the area. Then, they recognize that these deals are geared toward strong enough loan packages to meet their long-term real needs and thus make it easier for them to stay in business. Finally, this process helps fill working capital gaps, often the most critical and chronic problem these firms face.

Banks, which by nature are conservative, find it easier to join in development financing when the risk is shared, particularly since the LDD often assumes the position of greatest risk. Banks can also make more informed decisions, since the technical assistance provided by the LDD permits firms to approach banks with better information, clearer proposals and more complete business plans. Banks also find that by participating in these deals they have gained a foothold with potentially significant new business—that is, with the new or expanding firms that are successful.

The LDD finds that the development finance system provides a concrete, measurable tool that clearly reveals the impact of the system on both the firms assisted and the district as a whole. Expertise acquired in packaging deals is often useful in other LDD opportunities, and gives the LDD confidence to pursue other projects aggressively. Participating in these deals brings the LDD into direct contact with "key actors in our area's existing economic base" and establishes relationships that have many spinoff benefits for the LDD. The LDD feels that instead of being a kibitzer in deals, it is a full-fledged partner, sought after because it can "bring money to the table." The confidence this inspires in businessmen encourages them to turn to the LDD for other sorts of assistance and to participate in other LDD programs.



Robert Hormell.

"Working capital gaps are often the most critical and chronic problem new firms face."

Questions from Participants

There was time for only two questions from the participants. Todd Christianson of Virginia's CDBG program asked how to assess management. Venture capitalist John Weiss pointed to several steps his firm takes. It studies the business plan of a firm closely. It checks thoroughly on references. It makes a point of meeting the entire management team. It challenges every statement made by management to be sure that management is on firm footing. State official Mark Barbash suggested that having a group of industrial experts interrogate management was a good technique; such a group tended to be good judges of potential.

The next question, from Ivan Tylawsky, director of Pennsylvania's state Office of Program Development, raised the issue of how to improve the relationship between people with dollars available for financing and those anxious to make deals. Ron Henry responded by urging that "you look down the road to figure out how things fit together." John Weiss said that networking between any of the parties to investment deals pays off. For example, deals recommended by state and LDD people would be given serious consideration by his venture capital firm. And moderator Hans Mayer suggested that "you catalogue all assets, such as venture capital funds, even outside your own area."

Panel V

Market Development for Entrepreneurs

The panel "Market Development for Entrepreneurs" brought together four panelists with varied backgrounds in small business development to examine ways of encouraging and helping entrepreneurs.

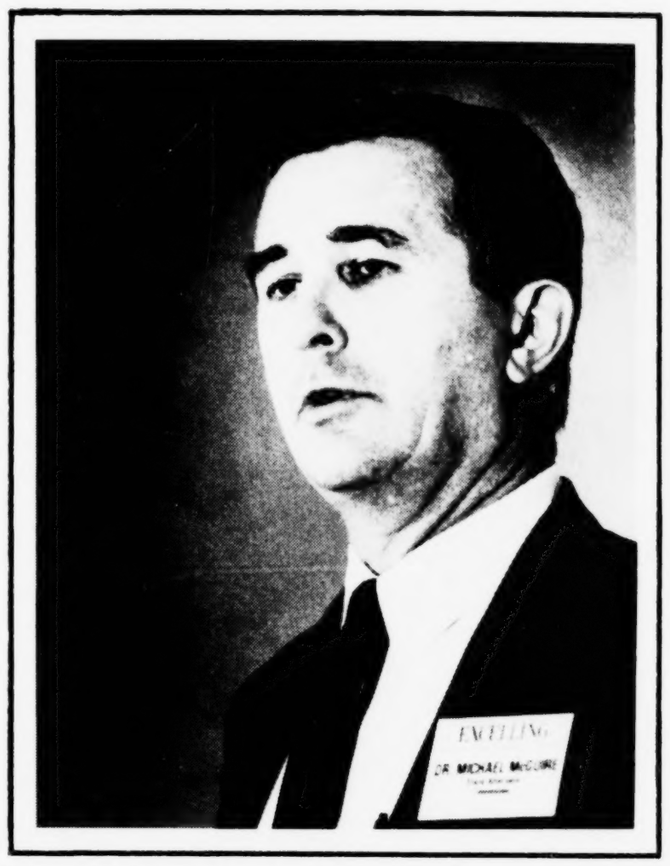
Moderator Mike McGuire, assistant commissioner of the Tennessee Department of Economic and Community Development, opened the panel with the observation that while large projects generate a lot of attention and are important, small business development is "the bread and butter of our local and state economies." Without the small business person, he said, "we would be a far different place than we are today."

Preparing Entrepreneurs for Success

In the panel's main presentation, Elaine Cinelli of the Council for Economic Action, Inc., described a pilot program created by the council in Boston to address the needs of entrepreneurs. She began with some background statistics on small business and the economy.

Over the past 10 years, Cinelli said, the U.S. economy has created 22 million new jobs, while the United Kingdom has lost two and three-quarters million jobs and West Germany has lost one and a half million jobs. The performance of the "great American job machine" is a clear reflection of the dynamic strength of the nation's market economy. Two-thirds of the nation's new jobs were created by new and growing businesses, most of which are independently owned and employ fewer than 20 people. Yet 1985 also saw the highest rate of business failure since the Great Depression, especially among nonmanufacturing firms. While this is partly due to the unusually high number of business starts, inadequate preparation and planning are important factors in the failure of new businesses.

The Council for Economic Action's Small Business Development Program was developed to address the issues associated with small business start-ups, particularly in disadvantaged areas. The program is based on the premise that economic opportunity rewards the best-prepared individual and is designed to provide that preparation through three key elements: market identification, management education and improved capital access.



Dr. Michael McGuire.

Market Identification. The council has developed a systematic program to examine an urban area and identify industries where there are fewer than the expected number of firms. These industries are considered prime targets for new business activity. The analysis is based on the fact that in cities of similar size, income distribution and other socioeconomic factors, the number of businesses in nonexport industries are remarkably similar. If an industry has fewer than the expected number of firms, the probability of success for new businesses is higher than in industries that are adequately supplied.

Management Education. The Boston University School of Management offers two courses for program participants: a short course designed to help potential entrepreneurs decide whether business ownership is right for them, and a long course consisting of training in marketing, finance and accounting, and human resource management. When individuals complete the long course, they have a fundamental grounding in their industry and its market, and a well-prepared business plan in their hands.

Improved Capital Access. The small business person's first meeting with the bank's lending officers is coordinated by the council. A volunteer technical assistance panel—made up of accountants, lawyers, marketing experts and bankers—offers advice to program participants and provides introductions to lending officers. The program differs from many other business development programs in that it does not seek special treatment from participating banks. It does not depend on preexisting loan pools or special guarantees. It asks only that program participants be evaluated by the bank's customary market-rate lending criteria on a deal-by-deal basis. In return, banks receive enhanced quality and increased volume of potentially bankable deals.

Another important element in the success of the Boston pilot program has been its outreach strategy. Using minority churches, black and Hispanic radio stations and other neighborhood media to reach potential entrepreneurs in the inner city of Boston, the first cycle of the program drew within two weeks 1,000 inquiries from people interested in taking the short course. In the end, 180 people completed the short course, and 45 went on to take the long course.

The results of the Boston pilot program have been impressive: in a year and a half, 30 new businesses were started, 80 percent of which are minority-owned and 70 percent owned by females; three quarters of a million dollars worth of capital financing was raised, of which $425,000 was from banks; and 65 permanent jobs were created.

The Boston model has already spread to Stockton, California; Milwaukee, Wisconsin; Chattanooga, Tennessee; Portsmouth, Virginia; and Lake County, Illinois. The council is also in

the process of exploring the application of its research methodology to small business development in rural areas.

The real key to the program's success, the council believes, is in finding the components in a community that are needed to make the program work: banks that are willing to take part in the program, economic development officials who provide local leadership, and an academic institution that wants to play an innovative role in its community.

"Inadequate preparation and planning are important factors in the failure of new businesses."

Elaine Cinelli.

Encouraging Small Business in Nonmetropolitan Areas

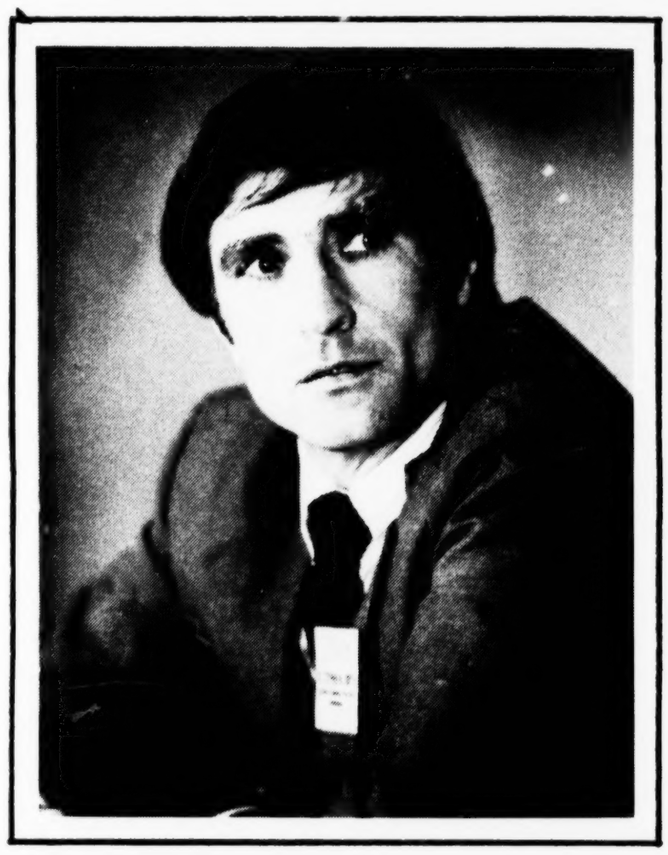
Dr. Stephen Smith, associate professor of agricultural economics at Pennsylvania State University, addressed small business development from the context of his work in rural and nonmetropolitan counties.

Most nonmetropolitan areas, Smith said, have gaps in their economic structure: that is, they don't have all the businesses and industries that you would expect they might have. These gaps are potential opportunities for new or existing businesses. Smith's research has focused mainly on nonmanufacturing and nonretail industries, specifically, business and producer services. Gaps in this sector are almost a universal rule in nonmetropolitan areas, which implies that these services are being supplied from outside the community. Filling these gaps is called import substitution.

The encouragement of business and producer services has several advantages for the small nonmetropolitan community. For one thing, they are among the fastest-growing sectors of the economy (although they are also among the fastest-dying sectors). They have relatively modest needs for physical facilities and can often use buildings that already exist in small communities. With today's technological advances in communications, service businesses can often reach their clients perfectly well from nonmetropolitan locations. Finally, they have the same potential to do business outside the immediate area that manufacturing or resource industries do.

In new manufacturing and nonmanufacturing businesses in nonmetropolitan counties, Smith said, the main source of capital for entrepreneurs is their own savings, families and friends or the local bank. Very few entrepreneurs use a nonbank lending source such as the Small Business Administration, Farmers Home Administration or industrial revenue bonds.

It is difficult to know why this happens without seeking the answers to some questions about entrepreneurs. Who are they? What is the source of their initiative? Are they workers who have lost their jobs and need to make a living, or are they people with experience in their field simply striking out on their own?



Dr. Stephen Smith.

"Gaps in the economic structure of nonmetropolitan areas are potential opportunities for new or existing businesses."

A large proportion of the entrepreneurs in many nonmetropolitan areas in the 1980s fall into the first category. They are unemployed timber and mine workers, or former employees of traditional manufacturing firms, or former farmers. They have little or no experience in business or financial management, and often no experience in the field they're going into. Development groups must know *about* the entrepreneurs in order to tailor their programs to fit their needs.

There are a variety of activities a community or development group could undertake to encourage entrepreneurship. Smith outlined several:

■ Encourage import substitution. When goods and services are purchased outside the community, money flows out instead of generating jobs and income locally. A local group could determine what goods and services are purchased outside the area, why they are not purchased locally, and how local businesses can know what these potential markets are.

■ Encourage local business and industry to purchase more of their supplies locally. Start a local action committee to assist in matching up local suppliers with potential markets.

■ Encourage and aid the expansion of locally owned businesses that export from the community or have the potential to do so. This is a better local development strategy than trying to recruit business from outside; it is more likely to be within the human and financial resources of the community. Another advantage of this approach is that local entrepreneurship and existing businesses create the vast majority of new jobs, and they tend to do so with local people. This is important in rural areas that are losing employment from their traditional sources.

Who can or should undertake these activities? Local government, Smith said, can be involved, but mainly as a catalyst. Government is only one entity in what has to be a broad partnership among such groups as chambers of commerce, economic development organizations, county and regional bodies and private industry councils. When local groups and individuals participate in an ongoing community effort, the result, besides increased employment and business activity, is that the community becomes more aware of its strengths and weaknesses, and can build on the strengths and work to eliminate the weaknesses.

Creating Businesses with Sales Potential outside Their Own Areas

Dr. Jack Byrd of the Center for Entrepreneurial Studies and Development, a nonprofit corporation affiliated with West Virginia University, spoke to the panel about his experiences working with new export-oriented businesses—businesses whose products are sold outside the community.

"Good ideas create growth businesses."

Dr. Jack Byrd.

Dr. Byrd began by listing a number of generalizations he has developed in his work:

■ Good ideas create growth businesses. A student at Yale University submitted a paper to his professor outlining an idea for an overnight delivery service. He received a C– on the paper but decided to go ahead with his idea anyway. The phenomenally successful business he created was Federal Express.

■ There is some growth segment in every industry. If you have the right product, even though the industry that would purchase it is not a growth industry, the product can still have good potential for growth. As an example, a technology might be developed to recycle sand used in the foundry industry so that it would not be classified as a hazardous waste.

■ Entrepreneurs often mistakenly believe other people have the same values they do. A combination of two separate kinds of businesses may sound appealing to an entrepreneur, but he may later discover that others do not share the same taste.

■ The initial market for products tends to be different from what the entrepreneur thought it was going to be. An example of this is the zipper, initially marketed for tobacco and mail pouches. It was rejected by the apparel industry when it was first introduced.

■ Markets tend to be built out of adversity. The vacuum cleaner was invented by a janitor who was allergic to dust.

■ Most entrepreneurs tend to be strong in one phase of business but not in others. They may have good ideas, but be poor at selling or financing. The problem is not only market development, but development of marketing talent in the entrepreneur.

Byrd pointed out that there are different ways of approaching marketing. We typically think of new products as having some uniqueness to them, but that's not always the case. Other aspects can make a product marketable, such as quality, geographic focus, customer focus, cost competitiveness or value added, that is, adding something to the product that other businesses are not able to or choose not to add.

Entrepreneurial opportunities often start with observations of a problem that exists and the development of an idea to solve that problem. There are a lot of problems and trends in the country today that offer market opportunities:

■ Lifestyle changes. The baby boom generation has a different lifestyle than older segments of the population. Some of their different tastes and desires are not being served today.

■ Time flexibility. People today want to do things on their own time schedule. The video cassette recorder is one product that takes advantage of this market.

■ Industrial decline. Industries in decline, such as the apparel industry, still have market opportunities, especi-

ally in the development of new technologies.

■ Environmental concerns. Clean coal technology is an area with a lot of opportunity. Waste and material recovery technology is another.

■ Recreation. Some electrical engineering students came up with an idea to implant a sensor device in a football that would detect when the ball was carried or thrown out of bounds.

■ Health concerns. With the aging of the population, this becomes an area of opportunity. The insurance crisis also presents new market possibilities. For example, there's a device on the market now that manual workers can wear that will warn them if they are performing a task that is likely to cause injury.

Byrd concluded by recommending that the public sector should become involved in new business development in several areas. One area is education, in training young people to be aware of business opportunities. Another is market assessment, an area where very little is being done now. Then, we need opportunities for innovation centers, places where people can try out new ideas. And finally, there is a critical need for setting up systems for networking, providing the opportunity for people with business ideas to find the people who have a need for their ideas.

Marketing Innovative Products

John Genung, president of Anflow, Inc., a Tennessee multiservice wastewater treatment company specializing in innovative technologies, spoke to the panel about the problems that face entrepreneurs offering innovative solutions to the marketplace.

Genung suggested that before developing a market strategy, business people should:

■ evaluate the source of services and products the consumer is currently using

■ examine the effectiveness of those services and products

■ ask what other service or product could accomplish the same service at a better value to the consumer.

John Genung.

"The business person offering innovative technologies faces some unique difficulties."

Business people must then consider who buys those goods and services—the private sector, large businesses, small business, the government—and then look at how the goods and services are purchased, who controls the specifications and how the goods and services are procured. After these questions have been answered, a market strategy can be developed.

The business person offering innovative technologies then faces some unique difficulties. The consumer wants to know where this innovative system is currently being used and where operating data on the project are available. If the system is not in place somewhere, it will be very difficult to sell it.

Another problem is insurance. Liability insurance on an unproven product is hard to come by. Large corporations can put up half a million dollars to insure a product themselves, but small business people can't. So they are forced to raise capital on a product that they're having a hard time selling. They go to the venture capital market in a weak position and face having to sell shares in their companies to stay in business.

Without government support, innovative products are labeled high risk by the insurance companies; this label hurts in the marketplace. A product that is perceived as unproven is hard to sell.

The bottom line, Genung said, is that entrepreneurs need partners more than they need money. If they can't put a product on the market because of government restrictions or perceived insurance problems, money for marketing and advertising won't do any good at all. What is needed is a commitment from local communities, businesses and governments to purchase these innovative products and services and demonstrate to the marketplace that they are good. This would give the product a local testing ground.

Help with licensing, with cutting the red tape of government rules and regulations on demonstration projects, is also needed.

Genung ended by echoing the statement made by Morris Tanenbaum (see page 29) that businesses will locate and thrive in environments conducive to the company's needs. To start creating and maintaining small businesses, he said, you must be responsive to their needs.

AT&T and CSX Executives Speak at Workshop

Tanenbaum: Why AT&T Selected Charleston as Site for a Center

The speaker at the workshop luncheon was Morris Tanenbaum, vice chairman of the board of AT&T. In his remarks on the Appalachian Region and its changing economy, Tanenbaum outlined for workshop participants the ideal community profile for location of a new company installation. A native of Huntington, West Virginia, Tanenbaum held several top positions with AT&T before becoming vice chairman of the board for finance and planning. Tanenbaum's major points follow:

Lysander L. Dudley, Sr., West Virginia's director of industrial development (left), presents Morris Tanenbaum, vice chairman of the board of AT&T, with a copy of a book of photographs of West Virginia.

"There is no mystery in what determines where we decide to build our factories, operating centers and office buildings. For the most part, it's a matter of economics. For AT&T, the economics are partially determined by the regulatory climate we face in each state, as well as the tax structure, state statutes and the available workforce.

I think it would be instructive to relate to you the story behind AT&T's selection of Charleston as the site for our credit management center.

Through our research, we knew the general area we wanted for the facility. That included the Middle Atlantic states.

Once we knew the region we wanted, we had to look at the prevailing regulatory climate in the states we were targeting and weigh that against our business needs. The regulatory and business climates are important factors in AT&T's business decisions because our ability to earn a profit is largely determined by these factors.

When we looked at West Virginia, we saw some restrictive statutes that would have hampered our ability to conduct business efficiently.

One such rule restricted a company's ability to monitor calls placed by sales people and operators, a practice that many companies use to improve customer service. This very restriction, we understand, had prompted a major airline—which had selected Clarksburg, West Virginia, as the site for one of its reservation centers—to relocate elsewhere.

Another statute that we find in many states requires companies to give two years' advance notice before closing their business. On the surface, this might seem to have benefits for the citizens of a state. In fact, it adversely affects the creation of new jobs. Businesses have no supply and demand guarantees to assure longevity, and they have to have flexibility in running their companies. It's bad business to close up a business, but sometimes it must be done to stop losses that threaten even more jobs. No business can willingly accept restrictions that threaten its economic health, sometimes its very survival.

Governor Moore assured us that we would face no such restrictions while he was in office. He told us he believed that business and government have a responsibility to work together to bring about economic recovery and an improved quality of life for everyone. And he then backed his commitment by working to change restrictive legislation that was costing West Virginia jobs and opportunities.

That got our attention. To date, he has demonstrated that West Virginia appreciates the value of a good business climate. Not only is Governor Moore an effective administrator; he's an excellent salesman. The bottom line is that AT&T's credit management center will open here in Charleston next year.

Governor Moore's strategy was first to make West Virginia competitive and then to sell his state. Now the challenge is to keep West Virginia competitive and to sell the state even harder.

Each state in the Appalachian Region has the same challenge and the same opportunities.

Your continuing success will be deter-

mined by how well you can compete, because competition is a fact of life for you just as it is for AT&T and the rest of the nation's business community.

While we were once concerned mainly with competition from within our borders, we now face stiff challenges from abroad—in my business, notably from companies in Europe and the Far East.

Advanced information technology—including computers and communications—has made it possible to conduct business without much regard for geography. We have entered an information age economy—an economy that is worldwide. No longer is it possible for a nation or a state to thrive in economic isolation.

In vying for new industries today, you are not only competing with states in New England, the South and the Pacific coast; you are also facing competitors such as Japan, Germany, Spain and Korea, among many others.

The industries with the most growth potential, which are thus very attractive to you and your competitors, are the so-called "high technology" companies. AT&T is among them.

These firms are buyers in a buyers' market. And they know they have lots of choices. They recognize that site location is only one consideration. They look for tax policies that do not disadvantage their business, and for other government policies that promote private enterprise. They have much to offer, and, in return, they expect an environment in which they can prosper.

Many states are now responding to this emerging need by taking the steps necessary to make themselves more competitive. So, eventually, a good site and business climate may not be incentive enough. That's when you'll need additional selling points to differentiate your states: for example, good education systems, adequate transportation networks, accessibility to recreational and cultural facilities, good health care services.

Each state in your region has what it takes to attract industry. And each state has plenty of differentiating assets. The challenge is to package what you have and then market it—aggressively promote it.

It can be done and done well. West Virginia is a good example. So too is Cleveland, Ohio. That city has gone through a big turnaround. It pulled itself out of bankruptcy and diversified its economy by bringing in a number of new businesses. And it is marketing its new image.

I sense the same thing happening in many parts of the Appalachian Region. And as a native son, I couldn't be more pleased and proud."

Snow of CSX: The Unpredictability of the Economic Process

A dinner in the rotunda of the state capitol concluded the workshop. According to the workshop dinner speaker, John W. Snow, chairman and CEO of the CSX Rail Transport Group, change is the chief characteristic of our industrial profile, and competition fuels change.

Since 1977, Snow has held several high corporate posts with CSX and the Chessie System. Prior to that, he had served as assistant secretary in the U.S. Department of Transportation and administrator of the National Highway Safety Administration. Major elements of Snow's description of the wrenching process the national—and international—economy has undergone during the last two decades follow:

John W. Snow.

"Over the course of the last 20 years we've learned that what the economists call the variables—those things outside the system, those jolts, those shocks, those waves, that none of us can anticipate, that none of us can foresee—are the ever-present stuff of economic life.

I was thinking as I prepared for tonight about the world you live in and what you have to adjust to in planning economic growth in the Appalachian Region. Who could have foreseen the '73 oil crisis, where over the course of a few months the price of oil doubles, where over the course of a year or so or several years it triples, and where in 1986 it falls by 40 percent? Who could have foreseen that?

Who in 1962 could have really foreseen or planned the globalization of the U.S. economy? Who would have thought that Japan, Korea and now southeast Asia would displace industrial America as the paramount center for manufacturing in the world? Who would have thought back then that Iowa and Nebraska would be reeling from the effects of foreign competition?

Or think of Massachusetts. In the late 70s Massachusetts was planning for a period of chronic and prolonged unemployment. Today, apparently its economy is the envy of most states.

I'm simply suggesting that change — things we can't foresee, perhaps that are unforeseeable—is the basic stuff of economic life. . . . Change, incessant change, is the driving force, the central fact of the private-market, competitive kind of system that we live in. If you have any doubt about that, I would ask you to look at the Fortune 500 list for 1955. More than half the firms on that list don't exist any more. Now, that's astonishing, but it's the case. I checked it myself.

The American economy above all else is an economy that responds to change because it has at its heart, at its soul, a fundamental fact that propels it—competition, technology competition, price competition, service competition, adjustment, adjustment to change.

Well, I must tell you that we in the railroad industry have not been immune. We reflect industrial America. We were built at the turn of the century to service industrial America. The industrial America of the 1920s and the 30s and the 40s doesn't exist any more. I regret that, but it is the case. Unfortunately, I don't think it's going to return.

Now, that brings a lot of discomfort to all of us who depend upon the traditional American manufacturing economy. But we have to change if we are to survive in the railroad industry, and we are now going through a process of major change. . . . We're going through a period that's very difficult in industrial America, and I hope all of you understand that the adjustments industrial America is making do not reflect lack of concern for communities of the Appalachian Region, or loss of faith in America. We're doing it because survival is the issue.

All my counterparts in industrial America—whether it's the steel industry or the auto industry, the chemical industry or the coal industry, extractive industries, phosphate industry—all the leaders of industrial America are facing up to the same thing. They are recognizing that nothing less than the survival of industrial America is what's at stake.

Our actions and our activities in trying to survive create major repercussions and implications for the economies of the states that you represent. I hope that you will bear with us as we go through this adjustment process. It won't be over tomorrow, and it won't be over the day after tomorrow. But I'm convinced that we at the CSX railroads are going to be around for a long time to come. I'm convinced the coal industry we serve is going to be around for a long time to come, although in different forms. We're transforming the core of American industry, but we will survive.

What about this thing called economic growth? How do you go about promoting it? I'm going to leave that to all of you who know a lot more about it than I do. From my experience in a number of states, though, I suggest that there are some things that at least have to be considered in the forefront of any effort.

One would be a coherent plan. Too often I sense that states pursue economic growth and economic policy in an ad hoc fashion, pursuing lots of individual proposals and lots of individual activities, siting of plants and pollution laws and health care laws and funding for universities and funding for high tech centers and this and that, without some overall coherent sense of where it takes you.

Another promising avenue that I have observed, one where states are being successful in promoting economic growth, is a new form of industrial capitalism, or maybe an adaptation to the needs of the last part of the 20th century. That is the public/private partnership. This seems to be a new adaptation with a lot of promise to it. We are pursuing it here in West Virginia and on a lot of other fronts, and I think it will pay a rich dividend.

But economic success will only come where, in my view, there is vision, a realistic assessment of where you are and what you can be and leadership to bring it about. . . . While industrial America is changing, we still have a role to play in economic development, and I hope that our economic development people are working in a worthwhile, creative and productive way with all of you."

Commission Meeting Focuses on Program Proposed Changes

The Appalachian Regional Commission meeting in Charleston, West Virginia, on September 25, 1986.

Following the regional workshop in Charleston, a meeting of the Appalachian Regional Commission was held on September 25, with Federal Co-Chairman Winifred A. Pizzano presiding. The meeting was attended by Appalachian state representatives.

At the top of the agenda was a detailed report on ARC program accomplishments during the past three years and proposals for new program directions. Federal Co-Chairman Pizzano suggested a refocus of future Commission activities. Her suggestions were intended to offer impetus to a dialogue with the Appalachian states on exactly what directions these proposals should take, in light of "new realities" dictated by changes in Appalachia's economy and the likely direction of the Region's future economic growth.

Also on the agenda were reports on current Commission research relating to coal, health care and the economic infrastructure of Appalachian industries and a forecast of further reductions in the Commission's administrative budgets for FY 1987 and FY 1988.

Program Accomplishments

In FY 1983, in the light of budget cutbacks, the Commission at the direction of Congress initiated the targeting of funds to fill the most critical gaps remaining in ARC programs. The director of ARC's human resources division, Jack Russell, who conducted an evaluation of ARC's success in meeting specific program objectives from 1983 through 1985, reported on nonhighway

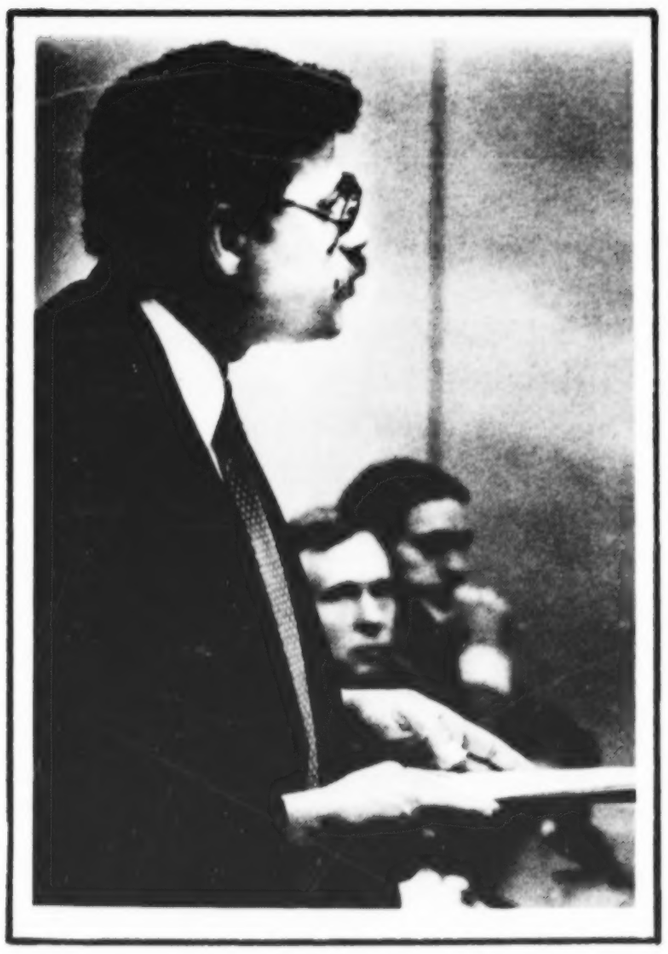
Accomplishments, Current Research and in Program Direction

programs, especially the creation of jobs and manpower training.

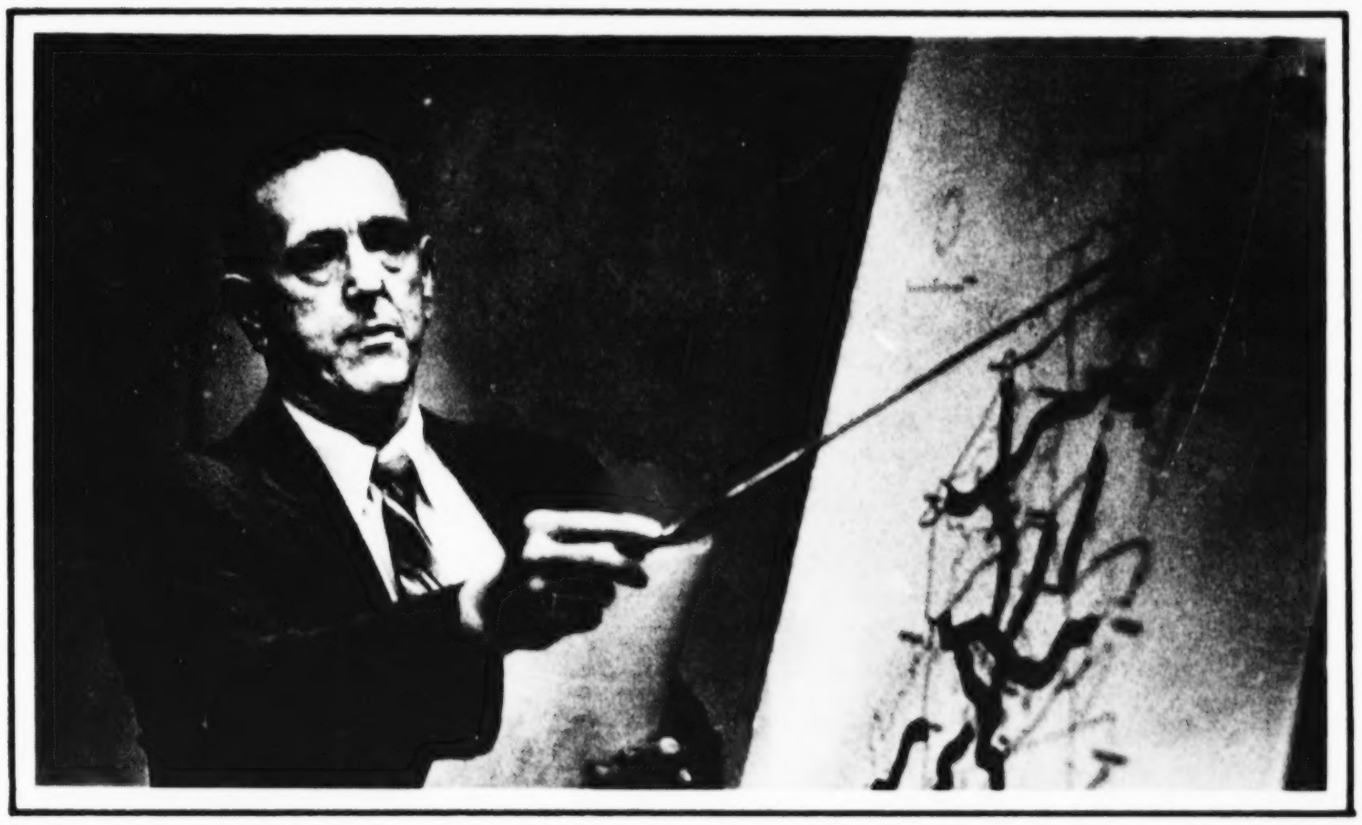
He said that the Commission had spent $101 million on its jobs and private investment program, attracting more than $1 billion in private investment and creating or saving at least 81,000 jobs, although the job total was almost certainly much higher than this estimate.

Education projects focused on basic skills and vocational education, as well as school dropout reduction, and served some 100,000 people, with an ARC funding level of $11.5 million.

In the health care field, Russell said that the Commission's biggest accomplishment was assisting in the placement of 350 physicians in underserved areas. The Commission also built 13 primary care centers and renovated 9 others. This three-year effort completed the Commission's health program, with funding of $11.7 million. These projects are serving at least 222,000 people.



Jack Russell, ARC director of human resources.



ARC senior transportation adviser Bob Duis.

In the distressed counties program designated by ARC in ten states, Commission funds of $45.8 million provided basic services, mostly water and sewer systems, to nearly 280,000 people.

In an overview of the current status of the ARC highway program, ARC senior transportation adviser Bob Duis reported encouraging new progress on the highway system due to a rise of more than $50 million in state prefinancing of Appalachian corridors since last year. This increase added significantly to the federal funding that is currently available. Duis said that it had been anticipated that there would still be 322 miles left to build in the system at the end of FY 1986, but the total has dropped to 305 miles.

Changes in Program Directions

As a result of several factors, the Commission recognized that it was time to reassess the policies and program adopted in 1981. Appropriations for ARC have been lower than anticipated, and employment growth in the Region has been almost nil during the past five years.

In addition, the Appropriations Committees of both the Senate and the House of Representatives have urged the Commission to continue human resource programs to address special regional problems.

Several proposals concerning changes have been suggested by Federal Co-Chairman Winifred A. Pizzano and others interested in ARC, including consideration of:

- singling out special areas within education, productivity and market expansion on which ARC's scarce resources might be targeted
- revision of the amounts of the match required between ARC funds and local or state funds to respond to congressional concerns
- revision of the distressed counties policy
- examination of the best methods of

At the Commission meeting table: ABOVE LEFT: ARC state representatives (left to right) Patricia Comp of South Carolina, Michael McGuire of Tennessee, Joseph Willson, Jr., of Virginia and Katharine Becker of West Virginia; CENTER: Federal Co-Chairman Winifred A. Pizzano and States' Washington Representative Michael R. Wenger; FAR RIGHT: (left to right) States' Washington Representative Wenger, ARC state representatives George Barker of Alabama, Wayne Haisten of Georgia, Hans Mayer of Maryland, Sonny Speights of Mississippi and Roger Swanson of New York. TOP LEFT: Robert Decker, ARC director of economic and program analysis.

allowing governors to take advantage of ARC's flexible funding to enhance individual states' strategic planning and economic competitiveness

- advisability of ARC support for state-designated enterprise zones
- evaluation of ARC support to areas performing below national standards.

These proposals and any others suggested for new program directions will be discussed in Commission meetings and work sessions in the next months.

ARC Research on Coal, Health, Economics

In the area of research, two current efforts on coal were reported. The first study, which is being undertaken by ICF Corporation, aims to determine the effects of oil pricing on the production of and demand for Appalachian coal. The second study, in two parts, will be done by the University of Kentucky. The first part, which will provide background for discussion at Coal Summit II in April 1987, in Lexington, Kentucky, looks at how mergers and consolidations in the coal industry affect coal pricing. In addition, the university is developing a marketing strategy for coal.

Robert Decker, director of ARC's division of economic and program analysis, led off his presentation on a projected study of the problems of small hospitals in the Appalachian Region by profiling these hospitals as a group. The topics ARC hopes to address in studies for which proposals are currently being developed are: the equity of payments made to rural versus urban hospitals under the recently installed Medicare prospective payment system; changes that may adversely affect the quality of Appalachian health care because of inequities in the new system; the effect of proposed changes in regulations on Appalachian hospitals and the availability of health care to medically indigent Appalachians.

Dr. Monroe Newman, ARC staff economist, gave an overview of a study now being prepared by SRI International that looks at six major Appalachian industries to determine what elements of economic infrastructure (access to capital, access to labor and access to technology) are essential to these industries and whether the necessary infrastructure is readily available. The industries selected for study are telecommunications equipment, textiles and apparel, scientific and engineering instruments, recreation and tourism, chemicals and plastics, and automobiles.

ARC Budget

ARC director of finance and administration Kenneth Shepard discussed a revised FY 1987 budget and the projected administrative budget for FY

TOP RIGHT: ARC director of finance and administration Kenneth Shepard.

1988. Shepard said the FY 1987 budget of $4,280,000 has been revised downward by $100,000 because of lower than anticipated costs. The FY 1988 budget of $4,240,000 is lower again by $40,000 and reflects a staff reduction to 55 from 58. Overall, staff has been reduced by 53 percent since 1981.

Allocations for FY 1987, based on an anticipated appropriation of $105 million, were presented to the table. The breakdown on allocations, which had been determined by the governor quorum meeting in February 1986, projects the following totals: highways, $64.5 million; access roads, $7.3 million; jobs and private investment, $20.5 million; distressed counties, $5.9 million; and LDDs, $2 million.

States attending the meeting were Alabama, Georgia, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia and West Virginia.

New Coal Process for Making Liquid Iron

Commission meeting participants heard a report from John Demchalk, ARC science adviser, on ARC's role in the trial of a new process with major cost-saving potential for steel manufacturers. The process, developed by Korf Engineering, a West German company, saves about 25 percent of the cost of making steel by eliminating the need to make coke. In brief, the "KR coal reduction" process uses a low-grade coal, without expensive preparation, to produce liquid iron, using a quasi-fluidized bed boiler to supply the gas necessary for the reduction of iron oxides.

The cost of this method is $196 per ton versus $245 per ton of liquid iron in the traditional blast furnace process. As the coking process is not only expensive but environmentally unsound, the KR process could address two major competitive problems of U.S. steel manufacturers.

The KR process was successfully tested in 1984 in West Germany using West Virginia coal and Minnesota iron ore pellets. The test was monitored by U.S. Steel (USX). An ARC grant of $50,000 to West Virginia was used to buy and ship 2,600 tons of coal to West Germany. In 1985, following U.S. Steel's favorable report on the test, ARC and other sponsors met in Pittsburgh with major U.S. steel manufacturers to describe the process. As a result, Weirton Steel and U.S. Steel have secured a $120-million demonstration grant from the U.S. Department of Energy to apply the process in Weirton's West Virginia plant.

Other sponsors of the testing were Minnesota's Department of Natural Resources, the Department of Energy, the Bureau of Mines, American Iron and Steel Institute and the West Virginia Coal Development Authority.

Kentucky's Fifth Congressional District

By Cynthia L. Duncan

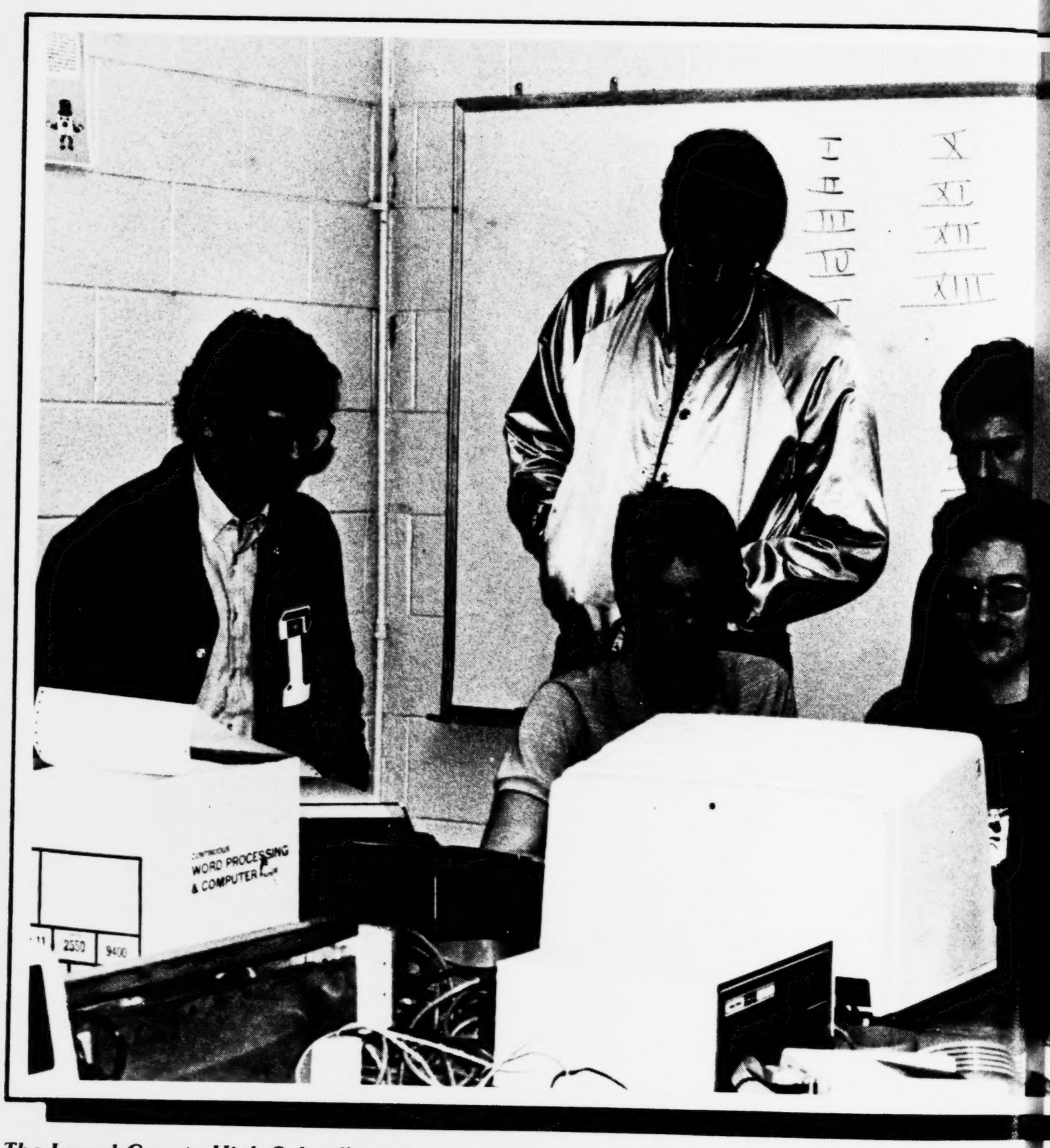
All I know—if you ain't got an education, you ain't got a future.

—High school student

Few will argue with the notion that the economic future of a place depends upon the education and skills of its people. Places that grow, whether from locally stimulated growth or attraction of new industry, are places with good educational systems and a well-educated populace.

Kentucky's Fifth Congressional District has a lower percentage of high school graduates than any other congressional district in the nation. Fully 62 percent of the adults living in the district have not completed high school, compared to 47 percent in the state and 34 percent in the nation. The Fifth District has fewer young people and more older people, fewer workers and more disabled people than the state or the nation as a whole (see the chart on page 41).

Conditions in the Fifth District prompted the Shakertown Roundtable, a nonpartisan public interest organization, to join Fifth District media leaders in an effort to address the intertwined problems of poor economic conditions and low educational attainment. The premise of the joint group is that solutions will grow from the vision and energy of the district's citizens. As part of this grassroots effort, the Mountain Association for Community Economic Development (MACED) talked with people in the district, exploring practical opportunities to raise the educational level, lower the dropout rate and improve the District's schools. Altogether, MACED interviewed 155 people from 15 of the Fifth District's 27 counties, including 17 school superintendents, 3 school board members, 12 principals or other administrators, 27 teachers, 5 retired teachers, 26 business and professional people, 26 high school and college students, 33 parents and 6 college administrators or professors.



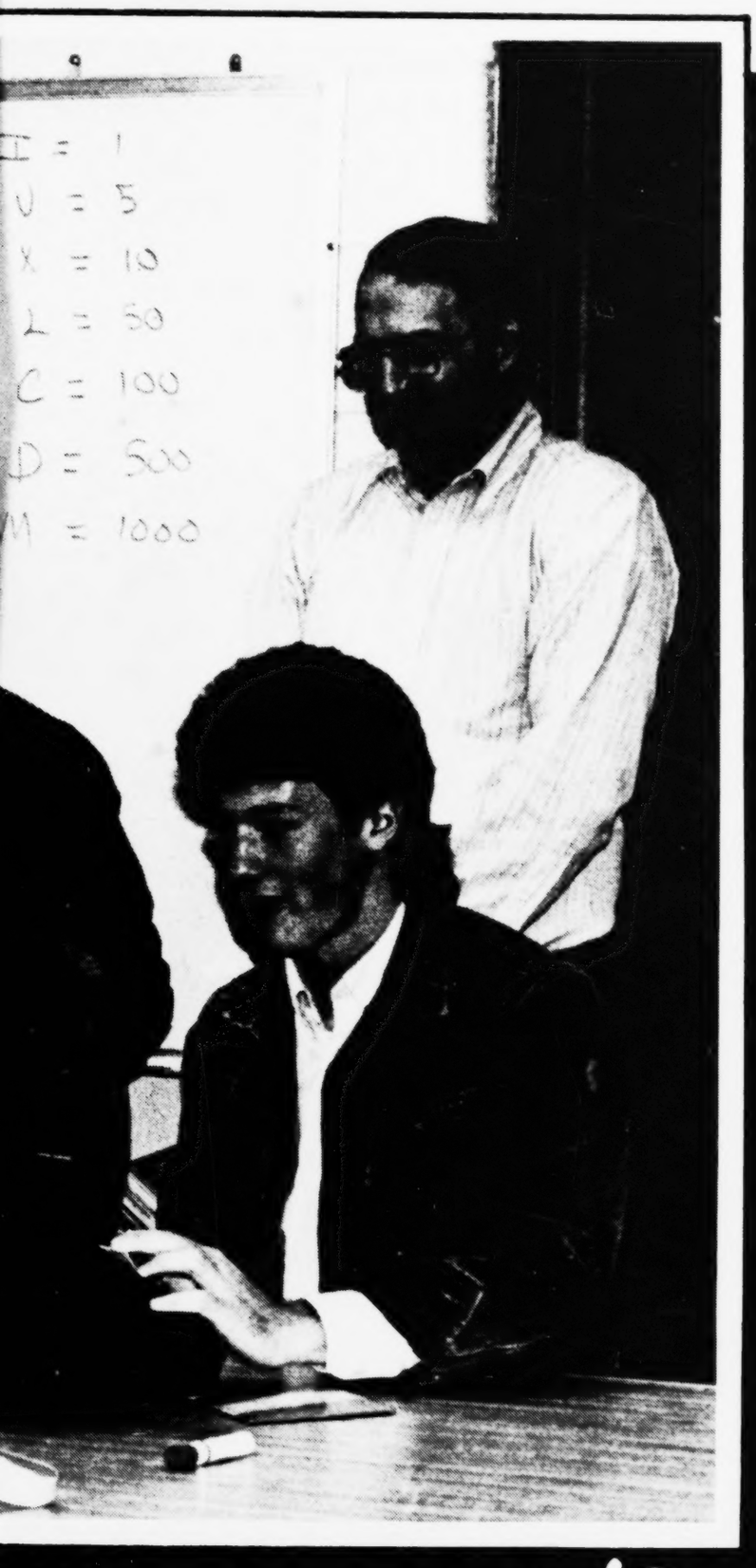
The Laurel County High School's computer team members often practice in the high school's computer department.

Three themes emerged from these interviews:

- Educational quality clearly lags in the district, but the students are as smart as students anywhere. Schools face greater obstacles because of regional economic problems.
- People throughout the district care about improving education, and their concerns and ideas for solutions show

Cynthia Duncan is the research director of the Mountain Association for Community Economic Development (MACED).

Explores Ways to Improve Education



a lot of common ground.

■ People agree that improving education is a task for the whole community; there is energy and commitment to build a new educational climate.

Many people described the Fifth District's combined problems of low educational attainment and an undeveloped economy as a "vicious cycle," and they are looking for ways to break that cycle. The effects of a poor economy are visible in educational attainment of adults: how many high school graduates there are, how many college-educated and professionally skilled people. Change must come through better schooling for children. Therefore, concerned citizens in the district are asking themselves how they can improve their schools. What will it take to lower dropout rates and upgrade the quality of education children receive?

How People Describe the Problems

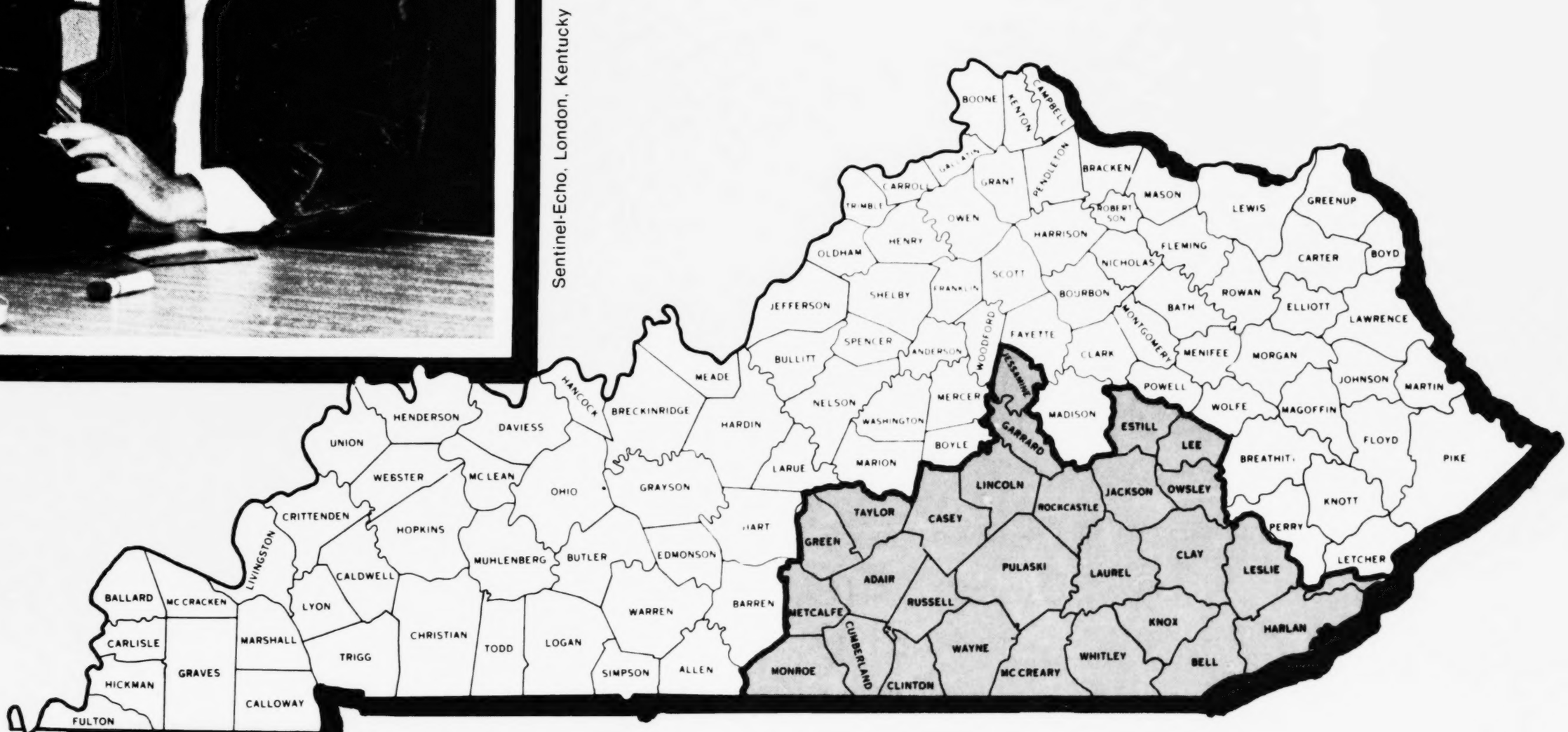
Our Children Are Smart

People emphasized over and over that children in the Fifth District are as smart as children anywhere, but they face greater obstacles because many come from poor families:

Our kids—I would put our kids up against anybody in San Francisco or California, or anywhere in the world. Only thing our kids lack is the chance to do something with it. They've got the minds; they're not dumb.

Many teachers said they work hard to convince their students they are smart and that it is "OK to be an Appalachian." Everyone knows successful people from the district who have over-

Sentinel-Echo, London, Kentucky



Fifth Congressional District. All counties except Metcalfe, Taylor and Jessamine are in the Appalachian Region.

come economic disadvantages and succeeded—lawyers, doctors, ministers, engineers, teachers—and these models are held up for children to see.

But despite these successes, people realize educational quality lags behind in the district. Schools have more dropouts, and students do not score as well on standard tests. Low educational attainment figures are mirrored by poor educational quality.

Lack of Economic Opportunity

Over the last several decades, many people with education have left. Therefore, guidance counselors, school superintendents and business people attribute much of the area's educational lag to outmigration:

> *It is not necessarily that we don't educate them, but that they don't stay here. It's a matter of economic survival. And it's left the others behind.*

Another person put it this way:

> *Unfortunately, we find that the better ones leave the county. The ones that graduate have to leave, unless they have some family connection within the county with an oil company, a coal company.*

People do not see much economic opportunity in the district for those who stay, and they worry about their children's economic future. One parent said:

> *The way times are changing, it's hard to predict whether our kids will live here when they grow up. The main thing around here is jobs. Jobs are so hard to find anymore. Anymore, it's even hard to find those odd jobs.*

For some, the lack of economic future translates directly into lack of motivation to finish school. As one young woman who had dropped out of school put it:

> *A lot of people's got the attitude that if I go through high school, I'm still not going to get no job, so what's the use.*

Nonetheless, parents and students from all kinds of different backgrounds clearly value education. We talked with people on welfare who were back in school "to try to make it a little bit better," and whose children were in college because they knew they needed an education to "get anywhere." Business people need educated workers, even in those jobs that have traditionally not required much schooling. One coal operator described how he took applications from people who could not read or write because he did not want to offend them, but he put an X on those applications:

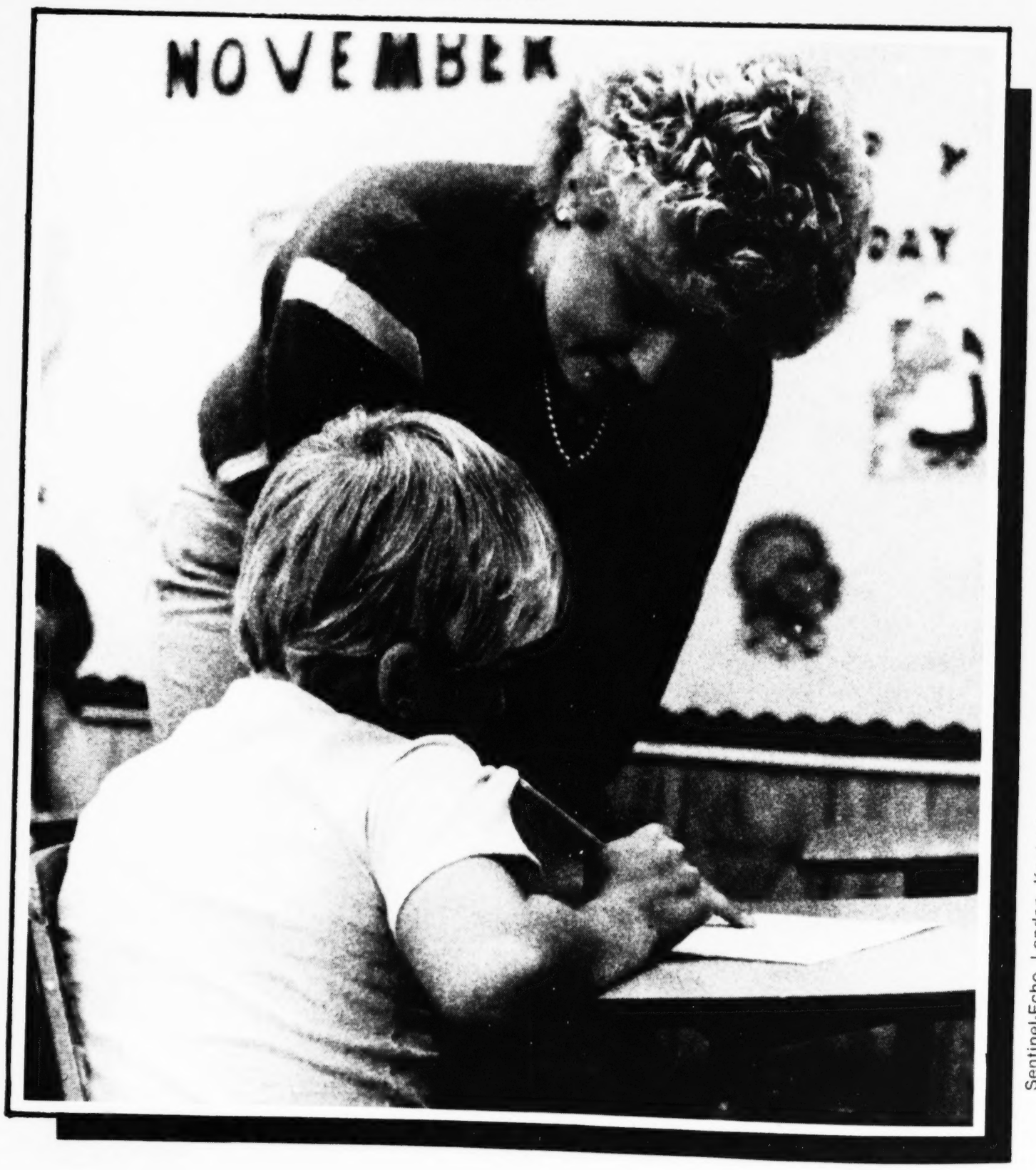
> *I figure if they can't read a warning sign, then they would just not be safe in our jobs. Probably they couldn't watch out for the safety of those working around them either.*

Community Support for Schools

The area desperately needs more economic activity. There are fewer resources to fund education, and there are more of the "harder-to-educate" students—those from low-income families. There is less financial support from the community for schools.

The property value assessment per student averages $89,000 across the state, but the Fifth District averages only $64,000. This compares to over $106,000 per student in Kentucky's more urban Fourth Congressional District 100 miles up Interstate 75. While slightly over a third of the students throughout the state fall in the

Leslie Lewis, a Laurel County elementary school teacher, works with a third-grade student from the Camp Ground school.



Sentinel-Echo, London, Kentucky

"economically deprived" category, nearly half the students in the Fifth District do. The district's handicap is visible in the relative local contribution to school funding (see Table 1 on page 42).

Statewide, 17 percent of funding for schools is raised locally, but only 10 percent in the Fifth District comes from local sources (in the Fourth, the proportion is 26 percent). The state's power equalization program attempts to even out these differences, and in fact the amount spent on instruction per student does not vary drastically across the state. But there is an important corollary between local resources for schools and the quality of schools.

Kentucky has devised an index measuring how much communities support their schools financially, given available resources, and this index varies widely. The state average is 435, but in the Fifth District it is only 313. In the Fourth District the index is 639. Community support for education, as measured by this index, goes hand in hand with school quality. Schools in which the community tries harder and puts more local money into education have fewer dropouts and higher student achievement.

MACED divided school districts within the Fifth District into three groups according to some standard measures of school system "success" (including the dropout rate, retention of students, placement of students from vocational education, percent going to college, test scores in various grades). Good schools have certain things in common (see Table 2 on page 43).

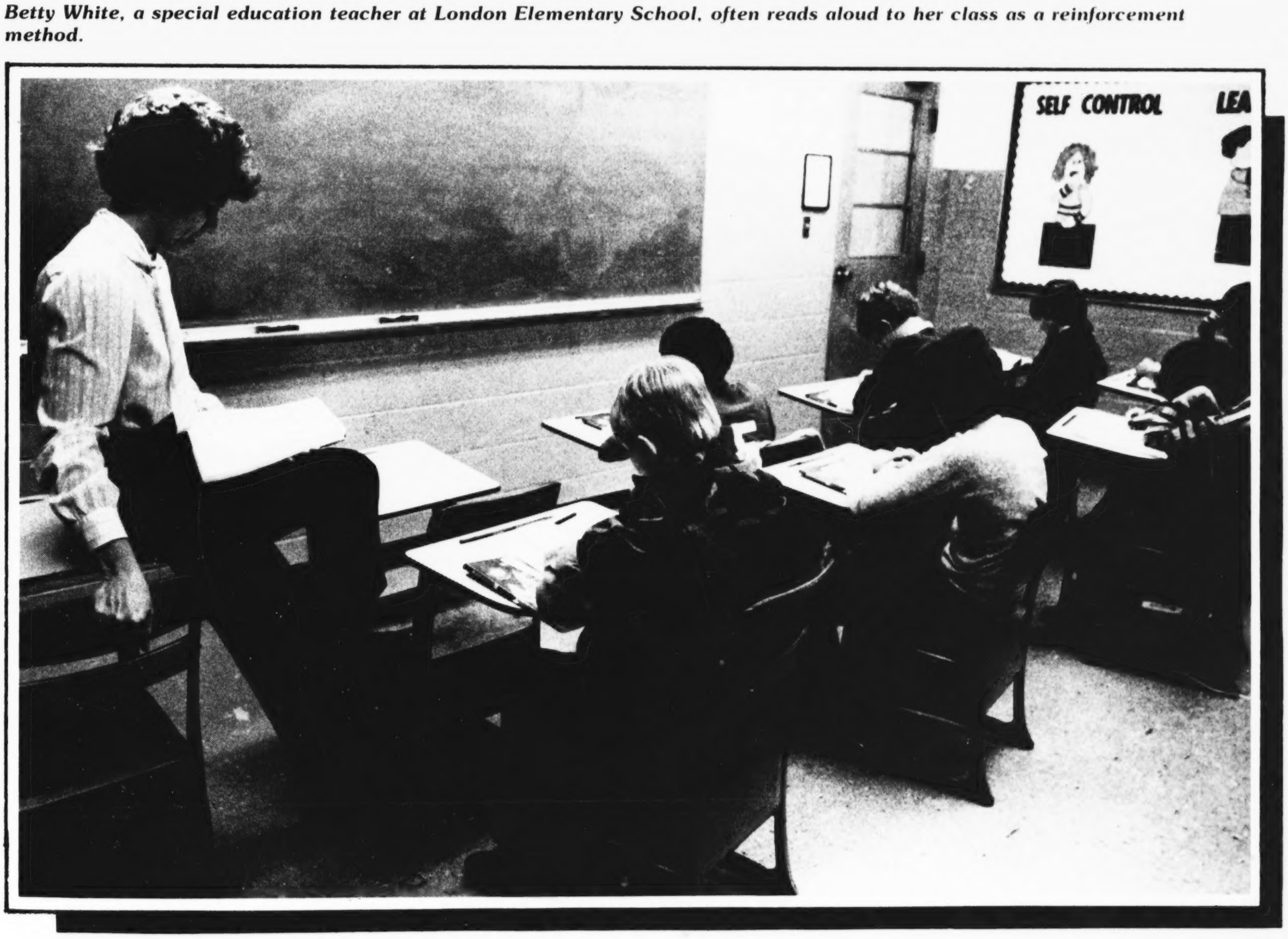
Their communities have more wealth—$75,000 per student compared to $70,000 in average systems and $47,000 in poor systems. They have fewer poor children to teach—38 percent of students in good schools, compared to 47 percent in average schools and 63 percent in poor schools. And, importantly, they work harder to support their schools: the financial index is 423 in good schools, just under the state average, compared to 220 in poor schools.

When we asked superintendents what they considered the biggest obstacle to improving education, most said "money." Even when a poor school district raises its taxes, it gets less because the tax base is so low. Poor places have a more difficult row to hoe, fewer hoes and less support for the whole enterprise.

People Worry about Low Expectations

We heard over and over that expectations of both students and schools are too low. Low expectations go hand in hand with lack of economic opportunity and widespread poverty. But even

Betty White, a special education teacher at London Elementary School, often reads aloud to her class as a reinforcement method.



Sentinel-Echo London Kentucky

though people found these low expectations understandable, many were convinced they were unfounded. Students and schools can overcome economic handicaps.

Parents blame schools for expecting too little of their children, and schools blame parents for not conveying the importance of school. For example, parents and students alike felt that students are categorized by schools on the basis of their appearance and their family name from the first day they enter school:

> *These kids walk in the door and are categorized by 90 percent of the teachers. "This is so-and-so over there; his mommy and daddy never did amount to a hill of beans."*

And parents were outraged:

> *Whatever a child has got on his back and no matter how ticky his hair is, no matter how nasty it is, no matter what hole it comes out of, it deserves the same chance as Sally sitting over here in a ruffled dress.*

Bright college students described how they had been grouped as low achievers in their first school years because of their appearance, and only after surprising the teachers and administrators with high grades were they given more encouragement. From several we heard that even when they performed well in school, they were advised to become beauticians and factory workers, not doctors, lawyers or teachers.

On the other side, many school people point out that the problem students are from welfare families, often one-parent families, often families with no one working. Everyone recognizes exceptions: "poor families who see the need for their children to go on through and they push them and encourage them in every way." Nonetheless, from the school's perspective, by and large, the students from poor families are those who fail.

But we found parents and school personnel who could understand both sides. There were parents who realized that children do not get the encouragement they need at home, and there were teachers and administrators who saw that schools categorize students and work with those for whom they have high expectations. One superintendent said, "Teachers' attitudes have to change":

> *In a rural area, when a youngster comes to school, and he's had older brothers or sisters, if they did well, then they expect him to do well. If they didn't do well, teachers have a tendency to say, "Well, the others weren't any account. They didn't do any good, and he won't either."*

Bad School Politics Hurt Education

Politics was cited time and time again as the primary obstacle to improving education. There are school systems in which many people feel that decisions are made on the basis of power and that coveted jobs are given away—not on the basis of what is good for schools and students. We found that the places that have heavily politicized school boards are the places that have the highest dropout rates and the lowest student achievement levels.

Common Ground for Change

Concerned citizens understand that children and schools in the Fifth District face complex problems. School administrators would like more money; teachers and parents would like dramatically smaller classes; teachers need more support from both parents and administrators; parents want more communication and involvement and higher expectations for their children. Everyone sees the need for getting bad politics out of school systems and developing greater support from the wider community. But these different emphases do come together into some common ground.

What People Said Could Be Done

Widen Horizons and Expectations

Fifth District residents with whom MACED talked understand that fundamental educational reform is key to their children's future. But while they work toward this long-term goal, they have ideas about what they could change

Pine Mountain Settlement School

As a part of the ARC-funded special dropout intervention and supplementary tutoring program at Pine Mountain Settlement School, students videotape programs for the heritage class.

tomorrow, what they could do when they get up in the morning, to begin to widen horizons and expectations.

Children in the Fifth District need to be exposed to a bigger world so that they can reach higher and farther for themselves. They should have art and music, and go on trips to museums and theater productions. They need opportunities to see the world outside the mountains.

They ought to hear people from their county talk about the value of education—see people for whom education has worked. Numerous people mentioned how much students gleaned

Full Report on Shakertown Roundtable Available

This article is adapted from a presentation made at a May meeting of the Shakertown Roundtable in Pleasant Hill, Kentucky. MACED presented an overview of research and interview findings and then invited the following people to speak about improving education: Eliot Wigginton, Foxfire, Rabun Gap, Georgia (what teachers can do); David Bergholz, Public Education Fund, Pittsburgh, Pennsylvania (what communities can do); and John Dashler, Unituft and Education Is E$$ential, Dalton, Georgia (what business leaders can do). The full MACED report, *Would You Like To Swing on a Star?*, co-authored by Carol Lamm, Anne Gabbard and Cynthia Duncan, is available from MACED, 210 Center Street, Berea, Kentucky 40403.

Educational Attainment in Kentucky's Fifth Congressional District Kentucky and the United States 1980

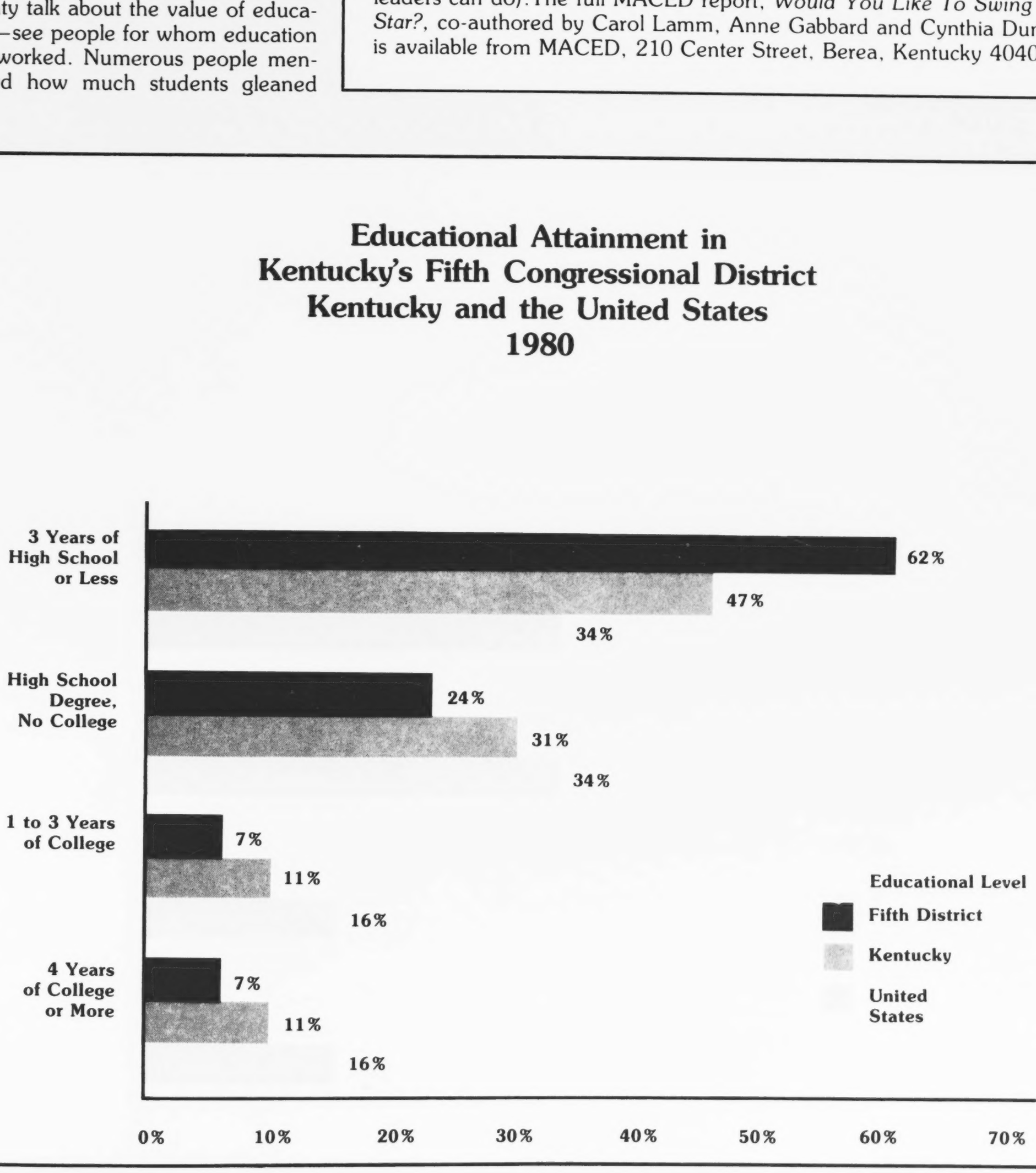


Table 1

Indicators of Economic Situation and Quality of Education Fourth and Fifth Districts and Kentucky as a Whole

	Fifth Congressional District	Fourth Congressional District	Kentucky
Property Value Assessment per Pupil, 1984	$64,082	$106,647	$89,264
Percentage of Children Economically Deprived, 1984	46%	26%	37%
Index of Local Financial Effort, 1984	313	639	435
Instruction Expenditure per Pupil, 1984	$1,176	$1,434	$1,297
Dropout Rate, Grades 7 through 12, 1985*	5%	4%	4%
Percentage of 9th Graders Graduating, 1984	62%	71%	68%
Percentage of Graduates Going to College, 1984	40%	44%	42%
Test Scores, 1985	54	57	56
Percentage of 3rd Graders Mastering Reading, 1985	77%	85%	81%
Percentage of 7th Graders Mastering Reading, 1985	66%	76%	72%
Percentage of 3rd Graders Mastering Math, 1985	85%	91%	88%
Percentage of 7th Graders Mastering Math, 1985	84%	91%	88%

*Dropout rate is defined by the Kentucky State Department of Education as including "any person who leaves school prior to high school graduation for any reason, other than death, and who does not enter another school." Thus a 5 percent dropout rate in 1985 means that 5 percent of the students in Kentucky in grades 7 through 12 withdrew from school in 1985. It does not count those who drop out during the summer (those who simply do not return to school). It counts only those who withdraw during the school year.

The rate usually used by ARC is the Census definition, which gives the percentage of 18-to-24-year-olds who have dropped out of school without graduating from high school. Since most students drop out after 6th grade, this would cover a six-year period (grades 7 through 12) and could be expected to be roughly six times the Kentucky rate quoted here. The Kentucky rate in 1980 by the ARC or Census measure was 30.5 percent.

Pine Mountain Settlement School

Individual tutoring is an essential part of the Pine Mountain Settlement School's dropout prevention program.

Table 2

Measures of Fifth Congressional District School Systems 1984

	Good (9 systems)	Average (18 systems)	Poor (11 systems)
Property Value Assessment per Pupil	$75,400	$69,200	$46,500
Percentage of Children Economically Deprived	38%	47%	63%
Chapter 1 Funds (1985-86)	$195,300	$323,300	$590,300
Index of Local Financial Effort	423	315	220
Expenses per Average Daily Attendance	$1,700	$1,600	$1,600
Instruction Expenditure per Pupil	$1,300	$1,200	$1,200
Materials Expenditure per Pupil	$32	$29	$27
Administration Costs per Pupil	$69	$72	$56
Transportation as a Percentage of All Expenditures	5%	6%	7%

from a recent visit from Alex Haley, author of *Roots*, and Berea College President John Stephenson. Visitors not only expand students' ideas about what they can become; they represent success stories in the flesh. One school's guidance counselor summed it up:

Any time anybody that's important to the community walks through that door and goes to a classroom and shares his or her time . . . and talents with our students, it has made a difference.

Many people suggested expanding parents' horizons as well—taking them to visit colleges, including them on field trips, building their expectations of what their children can become and convincing them that education is valuable. People had ideas for rewarding kids who graduate—giving them money, summer jobs, senior trips for graduates—a host of ideas.

Building a New Educational Climate

Ideas, both inside and outside the district, are plentiful. There are innovative dropout prevention programs and dedicated, creative teachers. The task, people told us, is to build momentum for implementing those ideas throughout the district. The way to improve education in the district is to get the whole community behind a movement that emphasizes that education is valuable, that all children can get a good education, and that all children need an education. One businessman said:

Business leaders have to start demanding that the people they hire are better educated. It's got to work hand in hand.

Those with whom we talked know that building a movement to value education—building a new educational climate—is a long-term process. But they envision a ripple effect. In a new educational climate, destructive school politics would no longer reign. People would no longer tolerate school politics based on wielding power over jobs.

It's going to happen when the people want it to happen . . . it will not end until the people want it to end and until they hold their public officials accountable.

People appear ready to begin making the change—they see new leadership and energy.

Our school board is improving, mainly because the attitude of the people is changing. They demand better education.

Another person said:

I see the potential for changing the old-time politics. The baby boomers are becoming your new leadership—the old leadership is breaking. I see a new vigor for the survival of the mountains in this new leadership—they will make a difference.

The theme we heard throughout the district was that change will come when those who live and work in the area demand accountability and better schools.

If we want change, the change has to come from within. If the people here in the mountains, in the Fifth District, don't want change, they're not going to have change. It's that simple. We've got to want to change ourselves.

MACED's interviews with the people of the Fifth District convinced us that the seeds are there to change the educational climate in the district. The children can be taught and kept in school. All those concerned—from students to parents to teachers to administrators to local business leaders—express concern and have ideas. There is indeed common ground. Many are ready to start planting those seeds now.

Recent ARC-Funded Projects to Improve Education in Kentucky

ARC has funded a number of projects designed to improve education in Kentucky, many of them focusing on ARC's current major educational thrust, dropout prevention. The projects described below are located in the Fifth Congressional District or are larger projects expected to have a major impact on the Fifth District.

Laurel County Alternative School

The Laurel County Board of Education purchased a building adjacent to the public school complex and with the help of ARC funds has established an alternative school for 38 students ranging from 8th to 11th grade. Students were chosen by an admissions committee of their respective schools, made up of teachers, counselors and assistant principals. To date 58 students have participated. Every available opening is taken, and as vacancies appear when students leave, they are filled immediately.

The school's objectives include individualized instruction, a more personalized atmosphere, a lower student-to-teacher ratio, activities geared to the performance of the student and evaluation by comparison of testing scores.

The school has already accomplished a great deal: a 50 percent increase in the academic grade point average of the students in comparison with the previous year's, a 24 percent increase in average daily attendance, an approximately 70 percent decrease in disciplinary referrals and suspensions and a substantial increase in socialization.

70001 Ltd. (see page 47) is working with the school to get business organizations more active in supporting the school financially.

Owsley County Dropout Prevention Program

This is a comprehensive dropout program located at the Owsley County High School. Activities include home visits by staff and peers; remedial education, counseling, tutoring and parental involvement programs; career preparation (placing students after school and on Saturdays in work sites of interest to them, developing employability skills, particularly electric typewriting, to help in obtaining employment at Data Com, helping students develop personal attributes and attitudes expected by most employers); career guidance; providing opportunities for students to acquire positive self images and social skills; and peer tutoring.

Sixteen peer tutors have been trained to work in a tutorial setting with 22 identified students. In addition, regular district remedial education and special tutorial

services are provided for more than 50 other students. Fifty persons are enrolled in evening typing classes, and there is a waiting list. Thirty students are participating in a personal enrichment/career education program including using community and business resource persons. A slide/tape show about the program has been developed so that the concept can be shared with others.

The high school is working with the elementary school in setting up a "school/community partnership" program in which parents and lay persons may become volunteer tutors in grades 4-6. The district believes this program will have a long-range effect on the holding

(ABOVE, LEFT) Laurel County Alternative School students enjoy their classes; (RIGHT) Jason Dunn is absorbed in the Owsley County High School's job box at the dropout prevention center (TOP) while other students model interviewing techniques.

power of the school. District workers visit homes and assist parents and families to take advantage of all health, education and social welfare programs available to them. Twenty-five have participated in the basic adult education program, and six have successfully passed the GED exam during the last quarter.

The county school district has received a $100,000 grant under the state's innovative incentive fund to help it better meet the needs of students from kindergarten through 12th grade, as well as a community education grant and a grant for its new preschool program for handicapped children.

Kentucky Department of Education ADOPT Program in Clay, Jackson, Lee and McCreary Counties

The four Fifth District counties listed, as well as Magoffin and Wolfe counties outside the Fifth District, will provide services to 675 students in grades 7 through 12 who have been identified as high risks for dropping out of school. The ADOPT project approach is to work with businesses, public service organizations, governmental agencies and teachers to build a school/com-

Pine Mountain Settlement School

Poetry from the creative writing class at Pine Mountain Settlement School culminates in a bulletin board display.

munity system that motivates youth to complete school. The target date for fully implementing these projects was the beginning of the 1986-87 school year. A management decision was made to spend time on staff development prior to implementation of the ADOPT projects, in the belief that the programs would be more successful if the ADOPT projects were planned well up front and then implemented for a full school year instead of being divided between two school years.

Pine Mountain Settlement School—Harlan and Letcher Counties

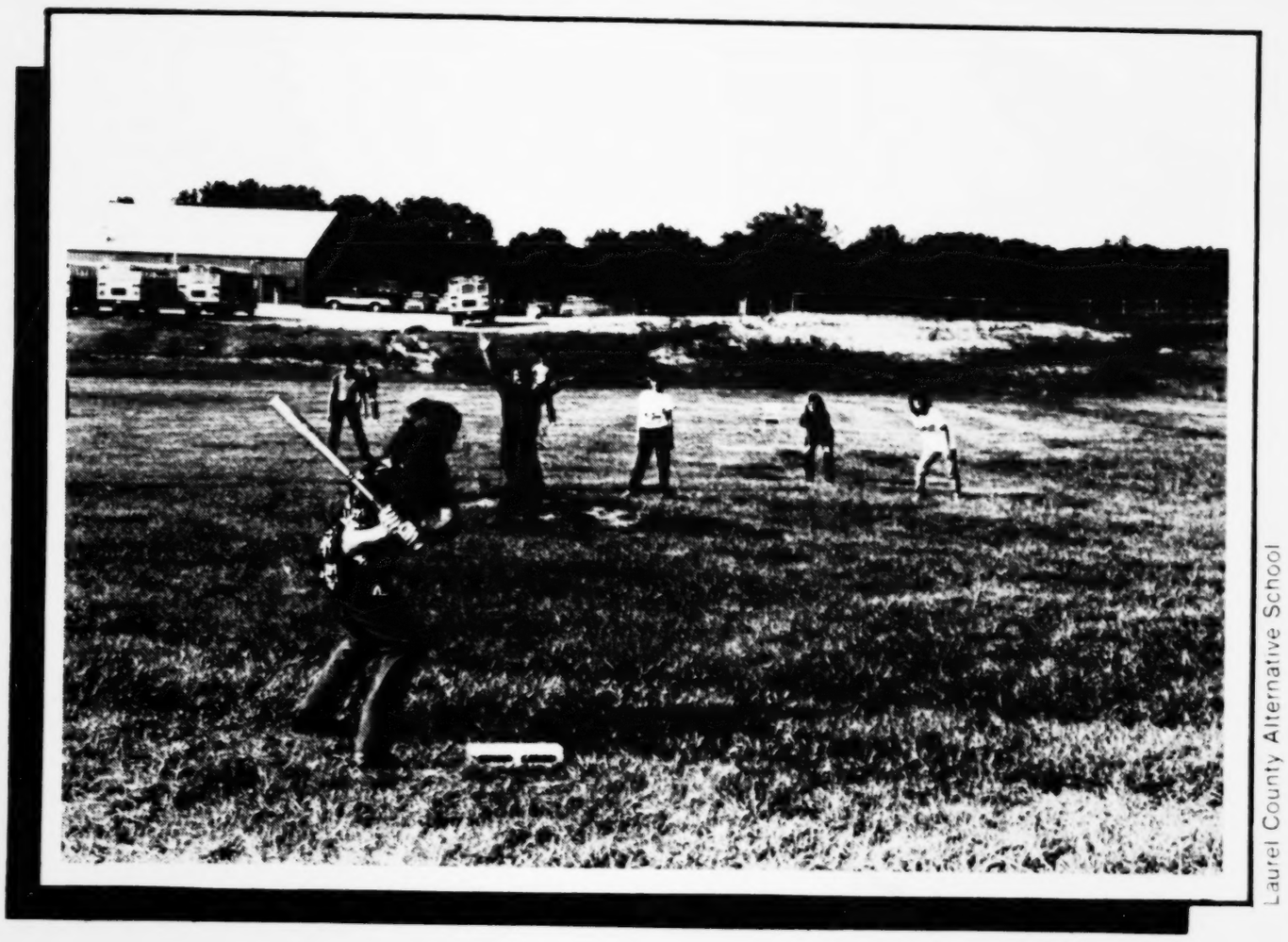
A special supplemental tutoring and intervention program has been established and implemented at the Pine Mountain Settlement School utilizing the school's library. One full-time teacher and one part-time teacher served a total of 38 students (32 students in grades 1-7 and 6 high school students) at first, but the school found it necessary to limit the number of students in the program to 23 to serve those in attendance adequately. Continuing with this smaller number until the end of the school year has allowed the school to perfect its program and procedures. Officials plan to expand the program in the 1986-87 school year. The program's main objective is to test, tutor and evaluate individual students considered potential dropouts and to increase those students' motivation for schooling. Increased parental involvement is a top priority. The individual attention and concern shown to the students of this program encourage community and parental involvement.

Kentucky Department of Education Technical Assistance Grant

This grant provides technical assistance, training, monitoring, evaluation and other services throughout the Appalachian counties of Kentucky. Funds are budgeted for two educational program consultants and one secretary/data processor position. One consultant who serves as the ARC grant administrator and the secretary have been hired. A second consultant will serve as a field consultant to the ARC counties.

Kentucky Department of Education Potential Projects

Projects in the counties of Clinton, Knox, Letcher, Lincoln, Russell, Wayne and Whitley as well as in four



Laurel County Alternative School

At the Laurel County Alternative School, Don Pennington swings the bat during physical exercise class.

counties outside the Fifth Congressional District have been designed through the Department of Education for implementation during the 1986-87 school year.

Kentucky Educational Television Documentary on Dropout Prevention

The Kentucky Education Television network project is utilizing television combined with a local outreach program for the purpose of creating awareness and action on dropout prevention in Kentucky. The television component consists of a one-hour documentary to be aired in September providing information about the dropout prevention problem in Kentucky, as well as showcasing exemplary dropout prevention programs in and out of the state. Interviews were conducted with teachers, parents, students, business people and state and local government officials. Public service announcements and teleconferences will also be held. A promotion packet including a brochure, sample press releases and newspaper ads is being developed and will be distributed to participating PBS stations. A follow-up newsletter will be printed and a state task force will be formed.

Regional Workshops on School Dropouts

The Kentucky Department of Education conducted a dropout prevention training workshop on January 8 and 9, 1986, on the Eastern Kentucky University campus. Barbara Dougherty and Jan Novak of the Vocational Studies Center of the University of Wisconsin (see *Appalachia*, Fall 1985, p. 18) presented the workshop. Specific elements included assisting in developing Kentucky's master educational improvement plan in the area of dropout prevention, assisting in developing Appalachian proposals, assisting in developing specific programs and strategies and providing training materials. A total of 32 people from 19 Appalachian school districts participated in this workshop.

70001 Ltd.

Roger Doucette, the ARC project officer for 70001 Ltd. (see *Appalachia*, Fall 1985, p. 7), has made several trips to Kentucky to meet with state education and local school district personnel. He has also provided technical assistance via mail and telephone, especially to the Laurel County Alternative School.

Appalachian State University

Appalachian State University provided a presentation at the state's annual dropout prevention conference and followed this up with a two-day workshop at Eastern Kentucky University in April for Appalachian school districts. The university is working with the state Department of Education to develop materials in the area of dropout prevention.

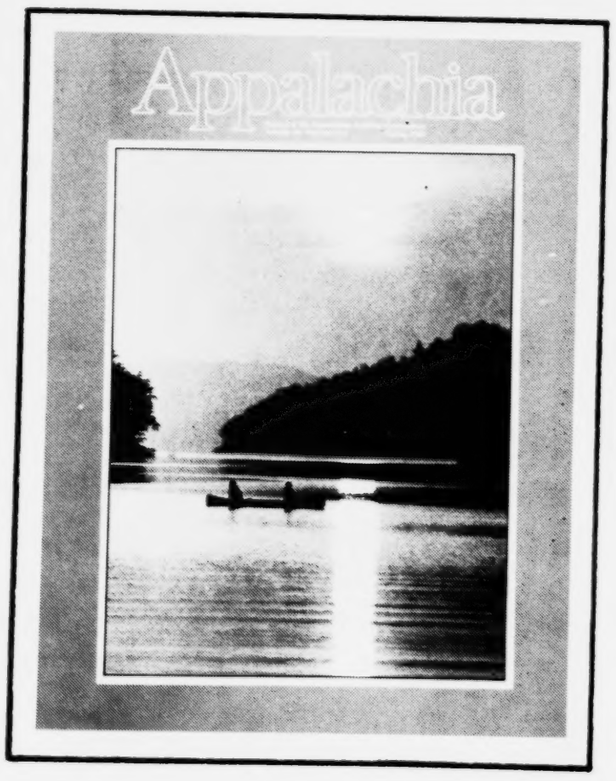
Strengthening Partnerships between School and Community—A Statewide Program

In 1984 the state of Kentucky began a statewide effort to improve elementary and secondary school education. Kentucky saw the need for this effort because, according to Governor Martha Layne Collins, "economic development is linked with high-quality education."

A major component of the effort is the partnership project between schools and school districts on the one hand and business and civic organizations on the other. This project, a concentrated effort to involve communities and schools in joint programs to improve education in individual communities, began in 1984 with a grant from ARC. A governor's conference explaining the project, with two-thirds of Kentucky's school districts represented, was held in December 1984.

Follow-up efforts were undertaken jointly by the Kentucky Department of Education and the Kentucky Educational Foundation, with assistance from the Jefferson County Public Education Foundation. The Kentucky Educational Foundation is composed of business leaders who initiate and support programs and projects to enrich education by encouraging and recognizing excellence on the part of teachers, school administrators and students. All 180 school districts in the state received supplementary materials on the program. Ten workshops on the program were conducted in Kentucky's Appalachian counties, and 20 Appalachian school districts formed new partnerships. A booklet, newsletter and survey on the program have been printed with the assistance of the Kentucky Educational Foundation. A teleconference attended by 230 people was held in June 1985 to promote and explain the program.

In FY 1985 another ARC grant, to the state's Department of Local Government, helped fund 18 new partnerships in Appalachian school districts. Mini grants of $5,000 each are being made to the districts selected and will be used for programs targeted at dropout prevention, adult literacy, preschool education, improved attendance, expanding and enhancing the skills of teachers and administrators and upgrading school facilities and operations.



More on Water for Russell Springs

The story in the Spring 1986 issue of *Appalachia*, beginning on page 1, on the water project at Russell Springs, Kentucky, inadvertently omitted to describe the role of the Kentucky Appalachian Housing Program (KAHP) in making sure that the town's Baron Hills subdivision participated in the new water project. KAHP, which is administered by the Kentucky Housing Corporation, used a $75,000 Appalachian Regional Commission grant to finance the waterlines that tied the renovated system into Baron Hills. Until this grant was made, only 53 FmHA-funded homes of the planned 132 had been constructed. FmHA refused to finance more because the supply of potable water was inadequate. With the KAHP grant to give Baron Hills access to the Russell Springs system, 79 additional homes for low- and moderate-income families can be built in this area where adequate low-cost housing is in very short supply.

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8th Floor
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Community Development Division
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320 Sixth Avenue, North
Nashville, Tennessee 37219-5308

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Stewart H. Gamage
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444 North Capitol Street, Suite 246
Washington, D.C. 20001

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Katharine Bullard Becker
Administrative Assistant for Federal Relations
Office of the Governor
State Capitol
Charleston, West Virginia 25305

Publications Highlight State Development Activities

Two recent publications highlight current activities in state government economic development practices.

Leadership for Dynamic State Economies is a policy statement from the Committee for Economic Development, an independent research and educational organization of over 200 business executives and educators. The committee describes the most effective approaches state leaders can take to promote economic progress in their states. The interrelationships among the nation's three levels of government are highlighted, and strategies for assessing state economies, setting directions and accomplishing goals are suggested.

The book is available from the Committee for Economic Development, 477 Madison Avenue, New York, New York 10022 for $9.50 plus $.95 postage.

Revitalizing State Economies, published by the National Governors' Association, is the result of a year-long study of state economic development policies and programs. This report describes the range of activities undertaken by the states and explains why they considered these activities. It identifies current trends in expanding or cutting back programs, organizational structures being put in place, how priorities are set and how resources are allocated.

The book is available for $12.50 from the National Governors' Association, Hall of the States, 444 North Capitol Street, Washington, D.C. 20001.

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A SUMMARY OF APPALACHIAN PROJECTS APPROVED AS OF SEPTEMBER 30, 1986

	Corridor System	Access Roads
APPALACHIAN DEVELOPMENT HIGHWAYS – *Mileage*		
Construction Completed or under Construction	1,982.2	820.8
Engineering and Right-of-Way in Progress	582.3	47.0

	Number	Amount (in millions)
HEALTH		
Construction and Equipment	810	$214.6
Operating Projects	798	206.3
Planning Grants	12	14.1
CHILD DEVELOPMENT	477	$169.1
EDUCATION		
Vocational Education	1,237	$373.7
Higher Education	241	62.4
Libraries	174	21.3
NDEA Grants to School Systems	76	7.1
Educational Television	27	7.6
Other	87	17.7
LAND TREATMENT AND EROSION CONTROL CONTRACTS	20	$18.3

	Number	Amount (in millions)
MINE AREA RECLAMATION PROJECTS	89	$49.8
COMMUNITY DEVELOPMENT		
Water and Sewer	1,550	$369.4
Airports	156	18.9
Enterprise Development	6	1.9
Industrial Site Development	205	53.7
Recreation	149	23.6
Other	128	29.7
HOUSING PROGRAMS		
State Housing Agencies	59	$ 37.8
Project-Planning (Loans)	120	4.3
Site and Off-Site Development	309	24.6
State Technical Assistance	167	9.1
Other	46	8.5